Periodical Distribution Industry's

Proprietary

Electronic Data Interchange

EMS

User's Guide

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1. Introduction

This user's Guide has been prepared as an operations manual to assist participating subscribers to the use of the Electronic Data Interchange (EDI) via the Electronic Mail System (EMS). The Guide contains detailed instructions concerning standardized procedures and record layouts used by the system.

The manual is organized as follows:

- Chapter 2 presents an overview of the EMS's functions and capabilities.
- Chapter 3 includes a detailed description of the record layouts used to transmit data.
- Chapter 4 includes a description of the procedures set up by DPS to transmit and receive data.

2. Overview

2.1 Purpose

The Magazine and Book Industry's Trading Partners developed EMS to be used to electronically transmit data contained on standard documents

Data is transmitted directly from the computer of the originating organization and subsequently received in a machine readable format on the recipient's computer. No keypunching or data entry will be needed to allow the information, contained on the actual document, to be used by the recipient on its own computer.

The documents for which data can currently be transmitted are:

- Magazine - Monthly Statements
- Magazine - Invoices
- Magazine - Credit Memos
- Magazine - Adjustment Memos
- Magazine - Allotment Notices
- Magazine - UPC/Cover Price/Title Data
- Magazine - Return Affidavits
- Book - Monthly Statements
- Book - Invoices
- Book - Credit Memos
- Book - Adjustment Memos
- PICS Database
- Internal Statistics

Other formats will be added as required.

2.2 Method of Operation

A Central Post Office facility has been set up at the Data Processing Service (DPS) service bureau in Clearwater, Florida. This facility is used as the central clearing house for all data transmissions. The system will operate as follows:

- Each participating Trading Partner must have a mailbox on the EMS computer.
- All data is transmitted from the originating Trading Partner to the EMS Post Office facility in Clearwater.
- Once there, the information is placed into the appropriate output mailboxes of the intended Trading Partner recipient.
- To receive any data transmitted to them, Trading Partners need to log onto the EMS Post Office computer in Clearwater via a telephone call and check their mailbox.
- Any information or data stored in the Trading Partner Recipient's mailbox is then transmitted from the EMS Post Office computer in Clearwater directly into their own computer.

2.3 Document Record Layouts

In order to simplify the transmission of data and have the receiving computer know exactly what the data means, standardized record layouts have been designed for each different type of transmission and document.

For each type of document, several different types of records may be needed to include all necessary information. Generally each document has at least three associated record types:

- A document header — supplies information that applies to the document as a whole, such as reference number and total dollar amounts.

  All headers also contain a field specifying the number of overall records that apply to the particular document. The count must not include the header record, rather only the number of records that follow.

- Document detail records — contain specific information regarding the transaction, such as the specific magazine and issue to be invoiced, credited, etc. The detail record may be in the form of a single record for each line item, or multiple line items on a single record.

- Comment records — can be used to include a message to further clarify a specific detail transaction. The comment record is not meant to be understood by the recipients computer -- it is there for a person in the recipient's organization to interpret.

Each type of record will be identified by a three position record code. Records used for a particular type of document will generally have the same first two leading values. For example, the 08x series will be used for Magazine Credit Memos.

A family is defined as a series of coordinated record formats which when taken together represent a full document or a series of related data. For example an 070 family consists of:

- 070 Magazine Invoice Header
- 072 Magazine Invoice Detail (Ship To / Bill To)
- 075 Magazine Invoice Comment
- 078 Magazine Invoice Detail
- 079 Mag Invoice Detail (Ship To/Bill To)

Each family header record allows the sender to enter a 4-position alpha numeric control id that allows EMS and subsequently them to receive positive/functional acknowledgements that a specific family for a specific receiver was received by EMS and subsequently transmitted to a recipient. The method used by the sender to manage this control id is totally up to the sender. However, it is recommended that for all control id's except for the 280 listed below, that each of the 4 positions be constructed using characters 0 to 9 and Capital A to Capital Z (not special characters or a blank); this will provide approximately 1.6 million unique combinations. Because this feature was added after many family header records were already in use and to keep EMS upward compatible with its existing users, this control id field was placed in positions 75 to 78 of all families except:

- 280 Credit Memo family – the control id is only 3 positions and resides in positions 78 to 80. To keep it consistent with the remainder of the system, it is recommended that there be an implicit first position of a "blank". This would provide the sender with 46,000 unique combinations for this family, which should be sufficient for several years, at which time they could be recycled.
- 010 Message – Will not have a control id as it is not a family and there isn't anyway to make it upward compatible
- The new variable records – if a family header uses a variable record, it will be placed in the first four data positions of the variable portion of the record.

The record layouts have been designed to be flexible enough to support the variations in practice among the various participating organizations. Consequently, not all fields incorporated in the layout may be needed by each party.

The following chart provides a summary of the documents supported by the system and the record types used to transmit the data:

2.4 Requests for Certain Data Downloads

In some instances, an EMS subscriber may request to have a file or specific data extract transferred to their system -- these transactions would not have been initiated via a sender placing them in the recipient's mailbox. (eg: PICS). The subscriber would request the download via a BBS command outlined in Section 4.2.

Summary of Record Types used in the EMS

Document	Code	Description
Message	010	General Message Record
Statement	020	Statement Header
	021	Statement Aging Balances
	022	Statement Transaction Detail
Magazine Adjust	030	Magazine Adjustment Header
	032	Magazine Sales Adjustment Detail
	033	Magazine Sales Adjustment Comment
	034	Magazine Non-Sales Adjustment Detail
	035	Magazine Non-Sales Adjust Detail Description
Magazine Allotment	050	Magazine Allotment Header
	051	Magazine Allotment First Distribution Detail
	052	Magazine Allotment Redistribution Detail
	054	Magazine Allotment Detail Extended
	055	Magazine Allotment Comment Free From
	056	Magazine Allotment Dist Correction Detail
	057	Magazine Allotment Dist Correction 1st Extend
	058	Magazine Allotment Dist Correction 2nd Extend
	059	Magazine Allotment General Correction
UPC/ Cover/ Title	060	Magazine PICS Header (N/D to EMS)
	061	Magazine PICS Data (N/D to EMS)
	063	Rejected PICS Header (EMS to N/D)
	064	Rejected PICS Data (EMS to N/D)
	065	Magazine PICS Header (EMS to Wholesaler)
	066	Magazine PICS Data (EMS to Wholesaler)
	069	Magazine Issue Level PICS Data **(for use ONLY with STRT)**
Magazine Invoice	070	Magazine Invoice Header
	071	Magazine Invoice Detail (Single Entry Format)
	072	Magazine Invoice Detail (Ship To / Bill To)
	075	Magazine Invoice Comment
	078	Magazine Invoice Detail (Compressed Multiple Entry Format {6})
	079	Mag Invoice Detail (Ship To/Bill To) (Compressed Multiple Entry Format {5})
Magazine Credit Memo	080	Magazine Credit Memo Header
	081	Magazine Credit Memo Detail (Single Entry Format)
	085	Magazine Credit Memo Comment
	088	Magazine Credit Memo Detail (Compressed Multiple Entry Format {6})
Bindery	090	Non Standardized Bindery Header
	091	Non Standardized Bindery Detail

Summary of Record Types used in the EMS (Continued)

Document	Code	Description
PICS Synchronization	160	Reserved
	161	Reserved
	163	Reserved
	164	Reserved
Magazine Affidavit	180	Magazine Affidavit Header
	181	Magazine Affidavit Detail (Multiple Entry Format {4})
	183	Magazine Affidavit Detail (Single Entry Format) **(for use ONLY with STRT)**
Magazine Draw/Ret Adj	190	Magazine Draw/Return Adjustments Header
	191	Magazine Draw/Return Adjustments Detail
Book Adjust	230	Book Adjustment Header
	232	Book Sales Adjustment Detail
	233	Book Sales Adjustment Title & Reference Info
	234	Book Sales Adjustment Comment
	235	Book Non-Sales Adjustment Detail
	236	Book Non-Sales Adjustment Detail Description
Book Invoice	270	Book Invoice Header
	271	Book Invoice Detail (Single Entry Format)
	272	Book Invoice Detail (Ship To / Bill To)
	274	Book Invoice Alternate Reference
	275	Book Invoice Comment
	278	Book Invoice Detail (Compressed Multiple Entry Format {4})
	279	Book Inv Detail (Ship To / Bill To) (Compressed Multiple Entry Format {4})
Book Credit Memo	280	Book Credit Memo Header
	281	Book Credit Memo Detail (Single Entry Format)
	285	Book Credit Memo Comment
	288	Book Credit Memo Detail (Compressed Multiple Entry Format {4})
EAM Electronic Authorization	322	Authorization Detail
	323	Rejected Authorization Detail
	324	Rejected Authorization Header
	327	Confirmation Authorization Detail
Statistics	700	Internal Statistics Header
	701	Mailbox Master
	706	Session Statistics (Compressed Multiple Entry Format {12})
Functional Acknowledge-ments	710	Functional Acknowledgements Header
	712	Functional Acknowledgement to EMS
	713	Functional Acknowledgement to Recipient
Industry Survey Input	740	Industry Survey Header
	741	Industry Survey Company Level Detail
ND Sales Collection	750	ND Issue Level Sales Collection Header
	751	ND Issue Level Sales Collection Detail

Summary of Record Types used in the EMS (Continued)

Document	Code	Description
Admin	981	Request a Simultaneous Carbon Copy

3. Record Descriptions

This chapter presents detailed descriptions of all the record types included in the EMS. Standard features common to all record types are discussed below:

- There are four types of records:
  - Standard 80-byte,
  - Compressed 80-byte
  - Variable
  - Variable Compressed.
- Each record format is used for one and only one record type. Each separate record format is always be the same length.
- The first three fields of a Standard (decompressed) format record are:
  - Sending Account Number - The four-byte identification number of the Subscriber originating the transmission.
  - Receiving Account Number - The four-byte identification number of the Subscriber to which the record is to be transmitted.
  - Record Code - The three byte code identifying the type of record.
- To avoid lengthy transmissions, particularly of statement package records, a compression algorithm, described in Appendix A, was developed. While most compression format types have a corresponding non-compressed counterpart, the long range intent will be to minimize the use of the non-compressed version. A better understanding of the compressing methodology can be found in Appendix A.
- All examples of compressed values are shown using the EBCDIC character set.
- The first four fields of a Compressed format record are:
  - The letter C - The first byte must contain the letter C (EBCDIC "C3"/ASCII "43")$_{hex}$ which tells the software that the next seventy-nine (79) bytes are actually one hundred and fifty-eight (158) positions of data.
  - Sending Account Number - The four-position identification number of the Subscriber originating the transmission.
  - Receiving Account Number - The four-position identification number of the Subscriber to which the record is to be transmitted.
  - Record Code - The three-position code identifying the type of record.
- Two proprietary variable format are used for longer more complex records. They each contain the length of the record in a fixed set of positions within the record.
- The first five fields of a Variable format record are:
  - The Letter V - The first byte must contain the letter V (EBCDIC "E5"/ASCII "56") $_{hex}$ which tells the software that the next 5 bytes contain the length of the record.
  - The Length in Bytes -.The length of the remainder of the record (it does not include the first 6 bytes described above)
  - Sending Account Number - The four-byte identification number of the Subscriber originating the transmission.

- Receiving Account Number - The four-byte identification number of the Subscriber to which the record is to be transmitted.
- Record Code - The three-byte code identifying the type of record.

- The first five fields of a Variable Compressed format record are:
  - The Letter R - The first byte must contain the letter R (EBCDIC "D9"/ASCII "52")$_{hex}$ which tells the software that the next 5 bytes contain the length of the record.
  - The Length in Bytes -.The length of the remainder of the record (it does not include the first 6 bytes described above)
  - Sending Account Number - The four-position identification number of the Subscriber originating the transmission.
  - Receiving Account Number - The four-position identification number of the Subscriber to which the record is to be transmitted.
  - Record Code - The three-position code identifying the type of record.
- Depending on the record code supplied, the remainder of the record layout varies.
- Data transmitted in normal format will be in character (Display) format. Field formats are described using standard COBOL PICTURE notation. All numeric fields are zoned decimal, i.e. the sign of the field is represented by an overpunch on the first byte of the field. Decimal places are always implied - the decimal point will not be physically present. Leading zeros should be inserted where needed.
- All of the fields included in the layout for a particular record type may not be used by everybody. The end user should verify which fields will be supplied by the sending party. Unused numeric fields may contain spaces rather than zeros. Each installation should screen the data before using it in numeric computations.
- Account identification numbers have been assigned by DPS to all participating Subscribers. Valid Sending and receiving account numbers must be present on each record otherwise the transmission will be rejected.

Each type of document that may be transmitted is discussed in one of the following sections. Each section includes:

- A general description of the purpose of each record.
- a detailed record layout for each record type, specifying each field name, its format and a description of its contents.

3.1 Messages

3.1.1 Record Types

A record type has been included to allow any Wholesaler or National Distributor participating in the EMS to send mail messages to any other participating member (Wholesaler or National Distributor).

Mail messages can be sent using the following record type:

Code	Description
010	Message Record

- As many message records as desired can be included in a particular mailing.
- By assigning a message number to each record, several message records can be grouped together to create a longer message.

3.1.2 Field Descriptions

Record Code 010 - Message Record

Positions From/To	Field Name	Format	Description
12/17	Message Number	9(6)	A number that identifies all records for a particular message.
18/20	Sequence Number	9(3)	Used for multiple line messages to indicate the sequence number of this specific lines position within the message
21/80	Message	X(60)	Free-form message field

3.2 Statements

3.2.1 Record Types

Monthly statements are transmitted from the National Distributor to the Wholesaler.

Monthly statements are transmitted using the following record types:

Code	Description
020	Statement Header
021	Statement Aged Balances
022	Statement Transaction Detail

- Both magazine and Book statements can be transmitted separately or consolidated using the same record types.

- Each statement will be preceded by a statement header specifying the statement date, the total number of records in the statement, the wholesaler's opening and closing balances for the month, and a code indicating whether the statement is for magazine transactions, book transactions or both.

3.2.2 Field Descriptions

Record Code 020 - Statement Header

Positions From/To	Field Name	Format	Description
12/15	Total Lines	9(4)	The total number of records for this statement.
16/21	Statement Date	9(6)	The date used for the statement (Format YYMMDD).
22/48	Filler	X(27)	Unused
49/59	Opening Balance	S9(9)v99	The Wholesaler's balance as of the end of the previous month. May be positive or negative (denotes a credit balance).
60/70	Closing Balance	S9(9)v99	The Wholesaler's balance as of the end of the current month. It should be equal to the sum of the transaction amounts on the subsequent detail records plus the opening balance. May be positive or negative (denotes a credit balance).
71/74	Filler	X(4)	Unused
75/78	Sender Control Id	X(4)	A unique AlphaNumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
79/80	Statement Type	X(2)	A code clarifying the type of statement: BK - Book Statement Only MG - Magazine Statement Only CN - Consolidated Statement for both Bks and Mags

Record Code 021 - Statement Aged Balances

Positions From/To	Field Name	Format	Description
12/22	Current	S9(9)v99	That portion of the balance that represents the current month's billing/activity
23/33	30 Days	S9(9)v99	That portion of the balance which is 30 days old.
34/44	60 Days	S9(9)v99	That portion of the balance which is 60 days old.
45/55	90 Days	S9(9)v99	That portion of the balance which is 90 days old.
56/66	120 Days	S9(9)v99	That portion of the balance which is 120 days old.
67/77	150 Days & Above	S9(9)v99	That portion of the balance which is 150 days and older.
78/80	Filler	X(3)	Unused.

Record Code 022 - Statement Transaction Detail

Positions From/To	Field Name	Format	Description
12/17	Transaction Date	9(6)	The date that the transaction occurred (Format YYMMDD).
18/19	Transaction Type	X(2)	Code indicating the type of transaction: IN - Invoice CM - Credit Memo RE - Reorder PY - Payment AD - Adjustment
20/29	Reference Number	X(10)	The reference number which uniquely identifies the specific transaction.
30/53	Description	X(24)	A description of the type of transaction (Invoice, Payment, etc.).
54/64	Transaction Amount	S9(9)v99	The total dollar amount of the transaction. May be either positive or negative.
65/74	Wholesaler's Reference Number	X(10)	Reference number used by the Wholesaler to match this transaction to his records.
75/80	Filler	X(6)	Unused.

3.3 Magazine Adjustments

3.3.1 Record Types

Magazine adjustments are transmitted from the National Distributor to the Wholesaler

The following record types are used for magazine adjustments:

Code	Description
030	Adjustment Header
032	Sales Adjustment Detail
033	Sales Adjustment Comment
034	Non-Sales Adjustment Detail
035	Non-Sales Adjustment Detail Description

- Each adjustment memo will be preceded by an adjustment header specifying the adjustment number, total number of records in the adjustment (including detail and comment), net copies being adjusted, and total adjustment dollar amount.

- Two types of transactions may be included in the adjustment:
  - .. Sales transactions.
  - .. Non-sales transactions.

- Sales transactions are those adjustments relating to a specific magazine and issue. Examples of sales transactions might include shortages and reorders.

- Non-sales transactions are used for debits and credits that are not related to a specific magazine and issue. Examples might include freight charges and rack charges.

- Sales transactions will be specified using record types 032 and 033. Record type 032 specifies the magazine and issue to which the transaction applies, as well as the adjustment quantity, dollar amount and a code indicating the type of adjustment.

- Each detail record may, optionally, be followed by a comment record. The comment record may be used to indicate the Wholesaler's reference number for the preceding detail, as well as desired comments.

- Non-sale transactions will be specified using record types 034 and 035. Record type 034 will contain the transaction detail. Each detail will include the dollar amount of the transaction as well as a code indicating the reason for the adjustment.

- Record type 035 may be used to include a description of the transaction recorded on the preceding 034 record.

- Price changes can be included as either a sales or non-sales transaction. Some National Distributors correct the price using a net billing or credit. This would be done via a non-sales adjustment. Others use an accounting reversal and a charge back. This type of correction would be accomplished via a sales adjustment.

3.3.2 Field Descriptions

Record Code 030 - Adjustment Header

Positions From/To	Field Name	Format	Description
12/15	Total Lines	9(4)	The total number of records (detail, comment and description) for this adjustment.
16/21	Adjustment Date	9(6)	The date of the adjustment (Format YYMMDD).
22/31	Adjustment Memo Number	X(10)	The National Distributor's reference number which uniquely identifies this adjustment.
32/39	Net Quantity	S9(8)	The sum of the quantities to be adjusted on all subsequent sales details. May be positive or negative.
40/48	Net Amount	S9(7)v99	The sum of the dollar amounts on all of the subsequent details (sales and non-sales). May be positive or negative (denotes a credit).
49/58	Wholesaler's Reference Number	X(10)	The number by which the wholesaler requested this adjustment (provided by the wholesaler to the ND).
49/74	Filler	X(26)	Unused
75/78	Sender Control Id	X(4)	A unique AlphaNumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
79/80	Filler	X(2)	Unused.

Record Code 032 - Sales Adjustment Detail

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	The BIPAD number of the magazine being adjusted
17/20	UPC Issue	9(4)	The code identifying the issue being adjusted. (Format is YYAA where YY is the last digits of the year and AA are the magazine's add-on code.)
21/26	Cover Issue	X(6)	The alphabetic issue date printed on the magazine
27/45	Title	X(19)	The title of the magazine being adjusted.
46/52	Quantity	S9(7)	The number of copies of the issue for which an adjustment has been made. May be positive or negative.
53/57	Cover Price	9(3)v99	The cover price of the issue being adjusted.
58/65	Billing Price	9(3)v9(5)	The discounted billing price for this magazine
66/75	Extension	S9(7)v999	The total adjustment dollar amount for this item (quantity x billing price). Debits will be indicated by a positive value. Credit will be indicated by a negative value.
76/78	Filler	X(3)	Unused
79/80	Adjustment Code	X(2)	A code clarifying the reason for the adjustment: SO - Shortage/Overage RS - Shortage/Overage Reversal TR - Transfer (from) TT - Transfer (to) RO - Reorder NS - Non-shipment SR - Suspended return credit PC - Price change OT - Other

Record Code 033 - Sales Adjustment Comment

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	The BIPAD number of the magazine being adjusted
17/20	UPC Issue	9(4)	The code identifying the issue being adjusted. (Format is YYAA where YY is the last digits of the year and AA are the magazine's add-on code.)
21/30	Wholesaler's Reference Number	X(10)	Reference number used by wholesaler to match this transaction to his files.
31/80	Comment	X(50)	Free-form message concerning the preceding adjustment.

Record Code 034 - Non-Sales Adjustment Detail

Positions From/To	Field Name	Format	Description
12/21	Wholesaler's Reference Number	X(10)	Reference number used by Wholesaler to match this transaction to his records.
22/32	Adjustment Dollar Amount	S9(9)v99	The total adjustment dollar amount for this transaction. Debits will be indicated by a positive value. Credits will be indicated by a negative value.
33/37	BIPAD	X(5)	BIPAD.
38/41	Issue Code	X(4)	Format of YYAA.
42/47	Cover Issue	X(6)	Desc of Issue on Cover.
48/66	Title	X(19)	Title Description.
67/78	Filler	X(12)	Unused.
79/80	Adjustment Code	X(2)	A code clarifying the reason for the adjustment: FR - Freight on return FD - Freight on delivery HD - Handling RK - Racks AL - Allowance RD - RDA PN - Price Change ON - Other

Record Code 035 - Non-Sales Adjustment Description

Positions From/To	Field Name	Format	Description
12/80	Description	X(69)	Free-form field which may be used to clarify the reason for the preceding adjustment.

3.4 Magazine Allotments

3.4.1 Record Types

Magazine allotment notices are transmitted from the National Distributor to its Trading Partner

The following record types are used for magazine allotment notices:

Code	Description
050	Allotment Header
051	First Distribution Detail
052	Redistribution Detail
054	Detail Extended
055	Comment Free Form
056	Distribution Correction Detail
057	Distribution Correction 1st Extended
058	Distribution Correction 2nd Extended
059	Distribution General Correction

- Each allotment notice will preceded by an allotment header specifying the allotment number, total number of records in the allotment (including detail and comment), and total allotment quantity.

- Following the header will be one detail record for each magazine to be allotted. Record type 051 is used to indicate that the issue is being distributed for the first time.

- Redistributions of an issue will be recorded using a record type 052.

- Additional data fields for type 051 and 052 records are continued on a type 054 record.

- A national distributor may also advise its Trading Partner of an adjustment, correction or modification to a previously sent distribution record or a first time distribution for this title/issue outside of the distributor's normal allotment cycle by using record formats 056, 057 and/or 058. The national distributor would only include the fields of data that have changed or have been added along with the BIPAD and UPC Issue. For example: if the onsale date and the offsale date changed as well as the quantity, the transmission would include:
  - > an 056 record with:
    - .. the incremental quantity in Positions 46 to 52
    - .. the new onsale date in Positions 68 to 73
  - > an 057 record with:
    - .. the new offsale date in Positions 39 to 44

  Note that if record formats 056, 057 or 058 do not have a field with a change, they should not be sent. In other words, only send the changes and corresponding record formats.

- A record format 059, a general purpose correction format, can be used to revise previously stated data or to send additional data about the magazine issue. Over time it would replace the 056 & 057 record formats.

- Each detail record may, optionally, be followed by a comment record. The comment record may be used to include messages relating to the preceding detail. The same comment record would be used for distribution (051/054), redistribution (052/054) and corrections (056/057/058).

3.4.2 Field Descriptions

Record Code 050 - Allotment Header

Positions From/To	Field Name	Format	Description
12/15	Total Lines	9(4)	The total number of records (Codes 051, 052, 054, 055, 056 057, 058 & 059) for this allotment.
16/21	Date	9(6)	The date of this allotment (Format YYMMDD).
22/31	Allotment Number	X(10)	The National distributor's Reference Number which uniquely identifies this allotment.
32/39	Total Quantity	9(8)	The sum of the quantities to be allotted on record formats 051, 052 and 056 of the subsequent details.
40/74	Filler	X(35)	Unused
75/78	Sender Control Id	X(4)	A unique AlphaNumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
79/80	Filler	X(2)	Unused.

Record Code 051 - First Distribution Detail

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	BIPAD number of magazine to be allotted.
17/20	UPC Issue	9(4)	Code identifying the issue to be allotted. Format YYAA, where: YY is last digits of year AA is magazine's add-on code
21/26	Cover Issue	X(6)	Alphabetic issue date printed on the magazine.
27/45	Title	X(19)	Title of mag to be allotted.
46/52	Quantity	S9(7)	Number of copies to be allotted.
53/57	Cover Price	9(3)v99	Cover price of issue to be allotted.
58/67	UPC	X(10)	UPC on the cover of the magazine to be allotted. Add-on code can be gotten from Positions 19 & 20 (within the UPC Issue).
68/73	Onsale Date	9(6)	The on-sale date for the issue of the magazine to be allotted (format YYMMDD).
74/76	Frequency	9(3)	The frequency of the magazine to be allotted, expressed in issues per year. (i.e. 001 is an annual, 012 is a monthly and 052 is a weekly).
77/79	Copies per Bundle	9(3)	The number of copies of each magazine contained in a standard carton or package.
80	Packaging Code	X(1)	Code indicating type of packaging used for the issue: O - Shrink-wrapped (opaque) C - Shrink-wrapped (clear) T - Tabbed B - Banded

Record Code 052 - Redistribution Detail

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	BIPAD number of magazine to be allotted.
17/20	UPC Issue	9(4)	Code identifying the issue to be allotted. Format YYAA, where: YY is last digits of year AA is magazine's add-on code
21/26	Cover Issue	X(6)	Alphabetic issue date printed on the magazine.
27/45	Title	X(19)	Title of the mag being allotted.
46/52	Quantity	S9(7)	Number of copies to be allotted.
53/57	Cover Price	9(3)v99	Cover price of the issue being allotted.
58/67	UPC	X(10)	UPC on the cover of the magazine to be allotted. Add-on code can be gotten from Positions 19 & 20 (within the UPC Issue).
68/73	Onsale Date	9(6)	The on-sale date for the issue of the magazine to be allotted (format YYMMDD).
74/76	Frequency	9(3)	The frequency of the magazine to be allotted, expressed in issues per year. (i.e. 001 is an annual, 012 is a monthly and 052 is a weekly).
77/79	Copies per Bundle	9(3)	The number of copies of each magazine contained in a standard carton or package.
80	Packaging Code	X(1)	Code indicating type of packaging used for the issue: O - Shrink-wrapped (opaque) C - Shrink-wrapped (clear) T - Tabbed B - Banded

Note: Record type 052 is identical to record type 051 with the exception of the record code.

Record Code 054 - Allotment Detail Extended

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	BIPAD number of allotted magazine
17/20	UPC Issue	9(4)	Code identifying the issue to be allotted. Format YYAA, where: YY is last digits of year AA is magazine's add-on code
21/38	Full UPC Code	X(18)	Full UPC-ie 0-12345/56790-8-09 broken down as follows: Pos 21 Number System Pos 22 '-' Pos 23-27 Mfg Number Pos 28 '/' Pos 29-33 Prod Number Pos 34 '-' Pos 35 Check Digit Pos 36 '-' Pos 37-38 Issue Add-On Suppressed UPC-ie 0-123456-7-12 broken down as follows: Pos 21 '0' Pos 22 '-' Pos 23-28 suppressed Number Pos 29 '-' Pos 30 Check Digit Pos 31 '-' Pos 32-33 Issue Add-On Pos 34 to 38 'blank'
39/44	Offsale Date	9(6)	Off-sale date for issue of mag being allotted (format YYMMDD).
45/50	Returns Due Date	9(6)	Final date that returns would be accepted for credit by the nat'l distributor (format YYMMDD).
51	Price Change	X(1)	Blank - no change "P" - Price change from previous issue
52	UPC Change	X(1)	Blank - no change "U" - UPC change from previous issue
53/60	Billing Price	9(3)v9(5)	The discounted billing price for this magazine
61/70	Extension	9(7)v999	The total dollar amount for this magazine (quantity x billing price).
71	Title ND Change	X(1)	Blank - no change "N" - Either a new title or an existing title that is now being distributed by this national distributor
72	BIPAD Title Change	X(1)	blank - no change "C" - the title for this BIPAD has changed
73/77	Number of Full Bundles	9(5)	Number of full bundles/cartons making up the allotment
78/80	Odd Bundle Copies	X(3)	Number of copies in the odd bundle

Note: The total number of full bundles and the odd bundle copies comprising the allotment would be calculated as follows:

A) The "Number of Full Bundles" is equal to the integer portion of the "Quantity" divided by the "Copies per Bundle"

B) The "Odd Bundle Copies" is equal to the "Quantity" minus ("Number of Full Bundles" multiplied by "Copies per Bundle").

C) For example:

	(A)	(B)	(C)
Quantity	150	100	75
Copies per Bundle	100	100	100
Number of Full Bundles	1	1	0
Odd Bundle Copies	50	0	75

Record Code 055 - Allotment Comment Free From

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	The BIPAD number of the magazine to be allotted.
17/20	UPC Issue	9(4)	The code identifying the issue to be allotted. (Format is YYAA where YY is the last digits of the year and AA are the magazine's add-on code.)
21/77	Comment	X(57)	Free-form message concerning the specified magazine.
78	Record Pointer	X(1)	Code pointing to the record for which this comment applies: 1 is 51 (1st Dist Detail) 2 is 52 (Re-Dist Detail) 6 is 56 (Dist Correction)
79/80	Sequence Number	9(2)	Used for multiple line notes to indicate the order in which they should be printed.

All messages should appear directly beneath the original distribution (051/054), the redistribution (052/054) or the corrected distribution (056/057/058) records.

There may be some upward compatibility issues with the use of the Record Pointer and Sequence Number fields. The programmer should logically determine if these fields make sense, if not, they should be treated as part of the comment text as was previously used.

Record Code 056 - Distribution Correction Detail

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	BIPAD of mag being adjusted.
17/20	UPC Issue	9(4)	Code of issue to being adjusted. Format YYAA, where: YY is last digits of year AA is magazine's add-on code
21/26	Cover Issue	X(6)	Alphabetic issue date printed on the magazine (if adjusted)
27/45	Title	X(19)	Title of mag (if adjusted)
46/52	Incremental Copies	S9(7)	Incremental number of copies to previously reported allotment (if adjusted)
53/57	Cover Price	9(3)v99	Cover price (if adjusted)
58/67	UPC	X(10)	UPC on the cover of the magazine. Add-on code can be gotten from Positions 19 & 20 (within the UPC Issue). (If adjusted)
68/73	Onsale Date	9(6)	The on-sale date for the issue of the magazine (format YYMMDD) (if adjusted)
74/76	Frequency	9(3)	The frequency of the magazine, expressed in issues per year. (i.e. 001 is an annual, 012 is a monthly and 052 is a weekly). (If adjusted)
77/79	Copies per Bundle	9(3)	The number of copies of each magazine contained in a standard carton or package (if adjusted)
80	Packaging Code	X(1)	Code indicating packaging type used (if adjusted): O - Shrink-wrapped (opaque) C - Shrink-wrapped (clear) T - Tabbed B - Banded

Record Code 057 - Distribution Correction 1st Extended

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	BIPAD of mag being adjusted.
17/20	UPC Issue	9(4)	Code of issue to being adjusted. Format YYAA, where: YY is last digits of year AA is magazine's add-on code
21/38	Full UPC Code	X(18)	Full UPC-ie 0-12345/56790809 broken down as follows: Pos 21 Number System Pos 22 '-' Pos 23-27 Mfg Number Pos 28 '/' Pos 29-33 Prod Number Pos 34 '-' Pos 35 Check Digit Pos 36 '-' Pos 37-38 Issue Add-On Suppressed UPC-ie 0-123456712 broken down as follows: Pos 21 '0' Pos 22 '-' Pos 23-28 suppressed Number Pos 29 '-' Pos 30 Check Digit Pos 31 '-' Pos 32-33 Issue Add-On Pos 34 to 38 'blank' (if adjusted)
39/44	Offsale Date	9(6)	Off-sale date for issue (format YYMMDD) (if adjusted)
45/50	Returns Due Date	9(6)	Final date that returns would be accepted for credit by the nat'l distributor (format YYMMDD) (if adjusted)
51	Price Change	X(1)	Blank - no change "P" - Correction of Price that was previously reported on the original allotment notice or subsequent correction notice.
52	UPC Change	X(1)	Blank - no change "U" - Correction of UPC that was previously reported on the original allotment notice or subsequent correction notice.
53/60	Billing Price	9(3)v9(5)	The discounted billing price for this magazine (if adjusted)
61/70	Extension	9(7)v999	The total dollar amount for this magazine (quantity x billing price) (if adjusted)
71	Title ND Change	X(1)	Blank - no change "N" - Either a new title or an existing title that is now being distributed by this national distributor
72	BIPAD Title Change	X(1)	blank - no change "C" - the title for this BIPAD has changed
73/77	Number of Full Bundles	9(5)	Number of full bundles/cartons making up the allotment
78/80	Odd Bundle Copies	X(3)	Number of copies in the odd bundle

Note: The total number of full bundles and the odd bundle copies comprising the allotment would be calculated as follows:

A) The "Number of Full Bundles" is equal to the integer portion of the "Quantity" divided by the "Copies per Bundle"

B) The "Odd Bundle Copies" is equal to the "Quantity" minus ("Number of Full Bundles" multiplied by "Copies per Bundle").

C) For example:

	(A)	(B)	(C)
Quantity	150	100	75
Copies per Bundle	100	100	100
Number of Full Bundles	1	1	0
Odd Bundle Copies	50	0	75

Record Code 058 - Distribution Correction 2nd Extended

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	BIPAD of mag being adjusted.
17/20	UPC Issue	9(4)	Code of issue to being adjusted. Format YYAA, where: YY is last digits of year AA is magazine's add-on code
21/30	Original Allotment Number	X(10)	The original allotment number on which BIPAD/Issue was first transmitted
31	Issue Code Change	X(1)	blank - no change "C" - The issue code previously reported needs to be changed. The next two fields show the original and revised issue codes.
32/35	Original Issue Code	9(4)	The issue code originally reported
36/39	Revised/New Issue Code	9(4)	The revised/new issue code. All future activity should use this code.
40	Cancel	X(1)	This BIPAD/Issue has been cancelled -- remove from wholesaler's distribution
41	UPC Out of Sync	X(1)	blank - not applicable "U" - The BIPAD within the UPC code does not match the national distributor's BIPAD. All activity with the national distributor should use the BIPAD, not the UPC BIPAD.
42	On Arrival	X(1)	blank - not applicable "A" - Ignore the on sale data and place issue on sale on receipt of copies.
43	Call In	X(1)	blank - not applicable "C" - Ignore the off sale date and call in the copies immediately
44	Late	X(1)	blank - not applicable "L" - The copies will be arriving late.
45/54	Description	X(10)	Short name indicating the reason this change.
55/80	Filler	X(26)	Unused

Record Code 059 - Distribution General Correction (Multiple Entry Format)

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	BIPAD of the title
17/20	UPC Issue	9(4)	Issue Code for the title. Format YYAA, where: YY is last digits of year AA is magazine's add-on code
21/30	Version Code	X(10)	The edition/version of the title/issue
31/53	*1st Group*		*Item to be corrected*
31/33	Transaction Code	X(3)	The code identifying the type of correction
34/53	Multi-purpose Value	From 1 to 20	The changed value. The format of the field would be dependent upon the Tran Code (See description below)
54/76	*2nd Group*		*Item to be corrected*
77/79	Filler	X(3)	Unused
80	Number of Items on Record	9(1)	Count of items on this record (1 to 2)

- The Multi-purpose Value field takes on a different format depending upon the value of the Transaction Code. The overall field size is 20 and the value(s) reported are always placed in the beginning portion of the field. The actual format of the values being reported are outlined in the table below. Standard left-justification with padded right blanks for alphanumeric fields and right-justification with leading zeros for numeric fields apply.
- The version code should be left blank if the data being reported is at the title/issue level.
- Each 059 record format can contain up to two different values for the same title, issue and version. The number of items needs to be noted in the "Number of Items on record" field. The user should use the leftmost (31/53) set first and the (54/76) second (if applicable).

Field to be Corrected	Tran Code	Format(s)		
Cover Price Test The cover price of this issue is a test only	001	9(3)v99	Filler X(15)	
Revised Cover Price The cover price has been changed	002	9(3)v99	Filler X(15)	
Revised Frequency The frequency of the title has been changed	003	9(3)	Filler X(17)	
Revised Issue Date The description printed on the title/issue has been changed	004	X(6)	Filler X(14)	
Revised On Sale Date The date on which this title/issue is to be placed on sale has been changed	005	9(6)	Filler X(14)	
Revised Off Sale Date The date on which this title/issue is to be taken off sale has been changed	006	9(6)	Filler X(14)	
Revised Title Name The title description has been changed	008	X(19)	Filler X(1)	

Field to be Corrected	Tran Code	Format(s)		
Revised UPC The UPC code printed on the title/issue has been changed	009	10 digit – X(10)	Filler X(10)	
		12 digit – X(12)	Filler X(8)	
		13 digit – X(13)	Filler X(7)	
		6 digit – X(6)	Filler X(14)	
Revised UPC Issue The Year and/or Add-On has been changed.	010	9(4)	Filler X(16)	
Cancelled BIPAD/Issue The title/issue will not be published or distributed by the sending party	011	9(5)	9(4)	Filler X(11)
Incremental/Decremental Copies The number of copies either added to or reduced from the previously sent allotment	012	9(7)	X(1) Blank (added) "-" (reduced)	Filler X(12)
Revised Copies/Bundle	013	9(3)	Filler X(17)	
Revised Packaging Code/Packaging Description	014	X(4)	X(16)	
Revised Returns Due Date All returns are due in by this changed date	015	9(6)	Filler X(14)	
Revised Billing Price The billing price has changed	016	9(3)v9(5)	Filler X(12)	
Revised Extension The total cost for the allotment has changed	017	9(7)v999	Filler X(10)	
Number of Full Bundles/Odd Bundle Copies See description under record format 057	018	9(5)	9(3)	Filler X(12)
UPC out of Sync "U" - The BIPAD within the UPC code does not match the national distributor's BIPAD. All activity with the national distributor should use the BIPAD, not the UPC BIPAD.	019	X(1)	Filler X(19)	
On Arrival Ignore the on sale date and place on sale upon receipt of copies	020	X(1)	Filler X(19)	
Call In Ignore the off sale date and call in copies immediately	021	X(1)	Filler X(19)	
Late The copies will be arriving late	022	X(1)	Filler X(19)	

3.5 Magazine Invoices

3.5.1 Record Types

Magazine invoices are transmitted from the National Distributor to its Trading Partner

The following record types are used for Magazine Invoices:

Code	Description
070	Invoice Header
071	Invoice Detail (Single entry format)
072	Invoice Detail (Ship to not same as bill to - single entry format)
075	Invoice Comment
078	Invoice Detail (Compressed multiple entry {6} format)
079	Invoice Detail (Ship to not same as bill to - compressed multiple entry {5} format)

- Each Invoice will be preceded by an Invoice Header, specifying the invoice number, total number of records on the invoice (including detail and comment), total number of copies being invoiced, and total invoice dollar amount.

- Following the header will be any of four types of invoice details. In order to reduce the transmission time, the sending national distributor may compress up to six normal detail items on a single record type 078, or up to four bill to / ship to detail items on a single record type 079. Alternatively, the national distributor may use the corresponding record type 071 or 072 which has a format of one record for each item. Record types 072 and 079 are used when a magazine is to be shipped to a location other than the wholesaler.

  Note that record types 078 and 079 contain only a limited amount of information as compared to the 071 and 072 record types. It does not contain the magazine title, issue description printed on the cover, and the actual extension. The extension can be easily be calculated by multiplying the quantity by the billing price; standard rounding (.5 or higher rounds up whereas .49999 or less rounds down) needs to be performed on each and every return item, not only on the final total.

- Each invoice item may, optionally, be followed by a comment record. The comment record may be used to include messages relating to the specific invoiced item.

3.5.2 Field Descriptions

Record Code 070 - Invoice Header

Positions From/To	Field Name	Format	Description
12/15	Total Lines	9(4)	The total number of records (071, 072, 075, 078 and 079) for this invoice.
16/21	Process Date	9(6)	The date the data was processed by the National Distributor (Format YYMMDD).
22/31	Invoice Number	X(10)	The National Distributor's reference number which uniquely identifies this invoice.
32/39	Total Quantity	9(8)	The total of all the quantity fields on record types 071, 072, 078 and 079 for this invoice.
40/48	Total Invoice	9(7)v99	The total dollar amount for this invoice. It is equal to the sum of the extensions for each 071 and 072 record type added to the product of quantity and billing price (appropriately rounded) for each 078 and 079 record type. If the total value is greater than 9,999,999.99 then fill this field with all zeros.
49/59	Total Invoice	9(9)v99	The total dollar amount for this invoice. It is equal to the sum of the extensions for each 071 and 072 record type added to the product of quantity and billing price (appropriately rounded) for each 078 and 079 record type.
60/74	Filler	X(15)	Unused
75/78	Sender Control Id	X(4)	A unique AlphaNumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
79/80	Filler	X(2)	Unused.

Record Code 071 - Invoice Detail (Single entry format)

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	The BIPAD number of the magazine being invoiced
17/20	UPC Issue	9(4)	The code identifying the issue being invoiced. (Format is YYAA where YY is the last digits of the year and AA are the magazine's add-on code.)
21/26	Cover Issue	X(6)	The alphabetic issue date printed on the magazine.
27/45	Title	X(19)	The title of the magazine being invoiced.
46/52	Quantity	9(7)	The number of copies of the issue being invoiced.
53/57	Cover Price	9(3)v99	The cover price of the issue being invoiced.
58/65	Billing Price	9(3)v9(5)	The discounted billing price for this magazine
66/75	Extension	9(7)v999	The total dollar amount for this magazine (quantity x billing price).
76/80	Filler	X(5)	Unused

Record Code 072 - Invoice Detail (Ship to not same as Bill to)(Single entry format)

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	The BIPAD number of the magazine being invoiced
17/20	UPC Issue	9(4)	The code identifying the issue being invoiced. (Format is YYAA where YY is the last digits of the year and AA are the magazine's add-on code.)
21/26	Cover Issue	X(6)	The alphabetic issue date printed on the magazine.
27/34	Ship To Account	X(8)	The number of the account to which the magazine was shipped.
35/45	Filler	X(11)	Unused
46/52	Quantity	9(7)	The number of copies of the issue being invoiced.
53/57	Cover Price	9(3)v99	The cover price of the issue being invoiced
58/65	Billing Price	9(3)v9(5)	The discounted billing price for this magazine
66/75	Extension	9(7)v999	The total dollar amount for this magazine (quantity x billing price).
76/80	Filler	X(5)	Unused

Note: Record type 072 is identical to record type 071 except that the ship to account number replaces the title.

Record Code 075 - Invoice Comment

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	The BIPAD code identifying the magazine being invoiced
17/20	UPC Issue	9(4)	The code identifying the issue being invoiced. (Format is YYAA where YY is the last digits of the year and AA are the magazine's add-on code.)
21/80	Comment	X(60)	Free-form message concerning the specified magazine.

Record Code 078 - Invoice Detail (Multiple entry format)

(Compressed record type as described in Appendix A).
Each record will hold up to six different BIPAD/Issue combinations using twenty-four (24) positions.

Positions From/To	Decompressed Field Name	Format	Description
14/37	*1st Group*		*Magazine Issue Combination*
14/18	BIPAD	9(5)	The BIPAD Code for the Nth item, of the possible six items, on this 078 record.
19/22	UPC Issue	9(4)	The code identifying the issue for the Nth item, of the possible six items, on this 078 record. (Format is YYAA where YY is the last digits of the year and AA are the magazine's add-on code.)
23/28	Quantity	9(6)	The quantity for the Nth item, of the possible six items, on this 078 record. The quantity must be a positive number and must not exceed 999,999 copies. If this item does not meet this criteria, then it cannot be reported on this 078 record but rather on its own 071 record.
29/31	Cover Price	9v99	The cover price for the Nth item, of the possible six items, on this 078 record. The cover price must be a positive number and must not exceed $9.99. If this item does not meet this criteria, then it cannot be reported on this 078 record but rather on its own 071 record.
32/37	Billing Price	9v9(5)	The billing price for the Nth item, of the possible six items, on this 078 record. The billing price must be a positive number and must not exceed $9.99999. If this item does not meet this criteria, then it cannot be reported on this 078 record but rather on its own 071 record.
38/61	*2nd Group*		*Magazine Issue Combination*
62/85	*3rd Group*		*Magazine Issue Combination*
86/109	*4th Group*		*Magazine Issue Combination*
110/133	*5th Group*		*Magazine Issue Combination*
134/157	*6th Group*		*Magazine Issue Combination*
158/159	Filler	X(2)	Unused
160	Number of items on record	9(1)	Count of the number of items recorded on this record (1 to 6).

Record Code 079 - Invoice Detail
(Ship to not same as Bill to) (Multiple entry format)

(Compressed record type as described in Appendix A). Each record will hold up to five different BIPAD/Issue combinations using twenty-four (24) positions.

Positions From/To	(Decompressed) Field Name	Format	Description
14/37	*1st Group*		*Magazine Issue Combination*
14/18	BIPAD	9(5)	The BIPAD Code for the Nth item, of the possible six items, on this 079 record.
19/22	UPC Issue	9(4)	The code identifying the issue for the Nth item, of the possible six items, on this 079 record. (Format is YYAA where YY is the last digits of the year and AA are the magazine's add-on code.)
23/28	Quantity	9(6)	The quantity for the Nth item, of the possible six items, on this 079 record. The quantity must be a positive number and must not exceed 999,999 copies. If this item does not meet this criteria, then it cannot be reported on this 079 record but rather on its own 072 record.
29/31	Cover Price	9v99	The cover price for the Nth item, of the possible six items, on this 079 record. The cover price must be a positive number and must not exceed $9.99. If this item does not meet this criteria, then it cannot be reported on this 079 record but rather on its own 072 record.
32/37	Billing Price	9v9(5)	The billing price for the Nth item, of the possible six items, on this 079 record. The billing price must be a positive number and must not exceed $9.99999. If this item does not meet this criteria, then it cannot be reported on this 079 record but rather on its own 072 record.
38/61	*2nd Group*		*Magazine Issue Combination*
62/85	*3rd Group*		*Magazine Issue Combination*
86/109	*4th Group*		*Magazine Issue Combination*
110/133	*5th Group*		*Magazine Issue Combination*
134/141	Ship To Account	X(8)	The number of the account to which the magazines were shipped
142/159	Filler	X(18)	Unused
160	Number of items on record	9(1)	Count of the number of items recorded on this record (1 to 5).

Note: Record type 079 is identical to record type 078 except that the ship to account number replaces part of the 6th magazine issue.

3.6 Magazine Credit Memos

3.6.1 Record Types

Magazine Credit Memos are transmitted from the National Distributor to its Trading Partner

The following record types are used for Magazine Credit Memos:

Code	Description
080	Credit Memo Header
081	Credit Memo Detail (Single entry format)
085	Credit Memo Comment
088	Credit Memo Detail (Compressed multiple entry {6} format)

- Each Credit Memo will be preceded by a Credit Memo Header, specifying the credit memo number, total number of records in the credit memo (including detail and comment), total number of copies being credited, total credit memo dollar amount, and total number of refused returns.

- Following the header will be either of two types of credit memo details. In order to reduce the transmission time, the sending national distributor may compress up to six detail items on a single record type 088. Alternatively, the national distributor may use a record type 081 which has a format of one record for each item. Record types 081 and 088 will be used for both accepted and refused returns. Refused returns will be identified by an explanation code.

  Note that a record type 088 contains only a limited amount of information as compared to the 081 record type. It does not contain the magazine title, issue description printed on the cover, and the actual extension. The extension can be easily be calculated by multiplying the quantity by the billing price; standard rounding (.5 or higher rounds up whereas .49999 or less rounds down) needs to be performed on each and every return item, not only on the final total.

- Each return item may, optionally, be followed by a comment record. The comment record may be used to include messages relating to the specific returned item.

3.6.2 Field Descriptions

Record Code 080 - Credit Memo Header

Positions From/To	Field Name	Format	Description
12/15	Total Lines	9(4)	The total number of records (081, 085 and 088) for this credit memo.
16/21	Process Date	9(6)	The date the data was processed by the National Distributor (Format YYMMDD).
22/31	Credit Memo Number	X(10)	The National Distributor's reference number which uniquely identifies this credit memo.
32/39	Total Accepted	9(8)	The total of all the quantity fields on record types 081 and 088 for all accepted return items for this credit memo.
40/48	Total Credit	9(7)v99	The total dollar amount for this credit memo. It is equal to the sum of the extensions for each 081 record type added to the product of quantity and billing price (appropriately rounded) for each 088 record type for each accepted return item.
49/54	Wholesaler Date	9(6)	The date of the return as specified by the Wholesaler (Format YYMMDD).
55/62	Total Refused	9(8)	The total of all the quantity fields on record types 081 and 088 for all rejected return items for this credit memo.
63/72	Wholesaler Credit Memo Number	X(10)	The reference number used by the wholesaler to uniquely identify this return.
73/74	Filler	X(2)	Unused
75/78	Sender Control Id	X(4)	A unique AlphaNumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
79/80	Filler	X(2)	Unused.

Record Code 081 - Credit Memo Detail (Single entry format)

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	The BIPAD number of the magazine to be credited
17/20	UPC Issue	9(4)	The code identifying the issue being credited. (Format is YYAA where YY is the last digits of the year and AA are the magazine's add-on code.)
21/26	Cover Issue	X(6)	The alphabetic issue date printed on the magazine
27/45	Title	X(19)	The title of the magazine to be credited.
46/52	Quantity	9(7)	The number of copies of the issue for which credit has been given.
53/57	Cover Price	9(3)v99	The cover price of the issue to be credited.
58/65	Billing Price	9(3)v9(5)	The discounted billing price for this magazine
66/75	Extension	9(7)v999	The total dollar amount for this magazine (quantity x billing price).
76/78	Filler	X(3)	Unused
79/80	Explanation Code	X(2)	A code clarifying the action taken on this return: RL - Refused - Late RP - Refused - Premature RN - Refused - Negative Sale NP - Refused - Not our publication DC - Discrepancy - Double Checked

Note: Explanation code DC - Quantity specified has been accepted; however, due to a discrepancy the quantity is not equal to that requested by the Wholesaler.

Record Code 085 - Credit Memo Comment

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	The BIPAD code identifying the magazine to be credited
17/20	UPC Issue	9(4)	The code identifying the issue to be credited. (Format is YYAA where YY is the last digits of the year and AA are the magazine's add-on code.)
21/80	Comment	X(60)	Free-form message concerning the specified magazine.

Record Code 088 - Credit Memo Detail (Multiple entry format)

(Compressed record type as described in Appendix A). Each record will hold up to six different BIPAD/Issue combinations using twenty-four (24) positions.

Positions From/To	(Decompressed) Field Name	Format	Description
14/37	*1st Group*		*Magazine Issue Combination*
14/18	BIPAD	9(5)	The BIPAD Code for the Nth item, of the possible six items, on this 088 record.
19/22	UPC Issue	9(4)	The code identifying the issue for the Nth item, of the possible six items, on this 088 record. (Format is YYAA where YY is the last digits of the year and AA are the magazine's add-on code.)
23/28	Quantity	9(6)	The quantity for the Nth item, of the possible six items, on this 088 record. The quantity must be a positive number and must not exceed 999,999 copies. If this item does not meet this criteria, then it cannot be reported on this 088 record but rather on its own 081 record.
29/31	Cover Price	9v99	The cover price for the Nth item, of the possible six items, on this 088 record. The cover price must be a positive number and must not exceed $9.99. If this item does not meet this criteria, then it cannot be reported on this 088 record but rather on its own 081 record.
32/37	Billing Price or Reject Code	9v9(5) or X(6)	This field is used to either provide a billing price or to give the reject code for rejected items for the Nth item, of the possible six items, on this 088 record. If the first position [32] is the letter 'X' then the item has been rejected, and the following two positions [33/34] will contain the reject code (i.e.): X01 - Refused - Late X02 - Refused - Premature X03 - Refused - Negative sale X04 - Refused - Not our publication X05 - Discrepancy - Double checked If the first position is not the letter 'X', then the billing price must be a positive number and must not exceed $9.99999. If this item does not meet this criteria, then it cannot be reported on this 088 record but rather on its own 081 record.
38/61	*2nd Group*		*Magazine Issue Combination*
62/85	*3rd Group*		*Magazine Issue Combination*
86/109	*4th Group*		*Magazine Issue Combination*
110/133	*5th Group*		*Magazine Issue Combination*
134/157	*6th Group*		*Magazine Issue Combination*
158/159	Filler	X(2)	Unused
160	Number of items on record	9(1)	Count of the number of items recorded on this record (1 to 6).

Note: Reject code X05 - Quantity specified has been accepted; however, due to a discrepancy the quantity is not equal to that requested by the Wholesaler.

3.7 Magazine Returns

3.7.1 Record Types

Magazine return affidavits are transmitted from the Trading Partner to the National Distributor.

Wholesalers may transmit their magazine return affidavits to the National Distributor using the following record types:

Code	Description
180	Affidavit Header - STANDARD
181	Affidavit Detail - STANDARD - Multiple entry {4} format
183	Affidavit Detail (Single Entry) (NOT for Transmission - Internal Use Only – to only be used in conjunction with IPDA's STRT software package)

- Each affidavit will be preceded by an affidavit header specifying the Wholesaler's reference number for this affidavit, total number of detail records in the affidavit, the date of the return, and the total number of copies being returned.

- Following the header will be as many affidavit detail records as needed.

- Returns of up to four (4) magazine issues can be included on a single 181 record in normal format.

- IPDA's Transaction Management Software (STRT)

  - Senders who use STRT
    - Sender's affidavit software creates Record Format 180 & 183 records
    - STRT inputs Record Formats 180 & 183 and then outputs modified 180 & 181 record formats

  - Receivers who use STRT and select the 183 output option in their STRT profile
    - STRT inputs Record Formats 180 & 181` and then outputs modified 180 & 183 record formats
    - Receiver's affidavit software uses Record Format 180 & 183 records

3.7.2 Field Descriptions

Record Code 180 - Affidavit Header - STANDARD

Positions From/To	Field Name	Format	Description
12/15	Total Lines	9(4)	The total number of detail records for this affidavit.
16/21	Date of Return	9(6)	The date of the affidavit (Format YYMMDD).
22/31	Reference Number	X(10)	The Wholesaler's reference number which uniquely identifies this affidavit.
32/39	Total Quantity	9(8)	The sum of the quantities to be returned on all the subsequent record type 181 and 183 details.
40/74	Filler	X(35)	Unused
75/78	Sender Control Id	X(4)	A unique AlphaNumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
79/80	Filler	X(2)	Unused.

Record Code 181 - Affidavit Detail – STANDARD - Multiple entry format

Each record will hold up to four different BIPAD/Issue combinations using sixteen (16) Positions.

Positions From/To	Field Name	Format	Description
12/27	*1st Group*		*Magazine Issue Combination*
12/16	BIPAD	9(5)	The BIPAD Code identifying the magazine for the Nth item, of a possible four items, to be returned.
17/20	UPC Issue	9(4)	The code identifying the issue for the Nth item, of a possible four items, to be returned. (Format is YYAA where YY is the last digits of the year and AA are the magazine's add-on code.)
21/27	Quantity	9(7)	The number of copies of this issue for the Nth item, of a possible four items, for which credit is being requested.
28/43	*2nd Group*		*Magazine Issue Combination*
44/59	*3rd Group*		*Magazine Issue Combination*
60/75	*4th Group*		*Magazine Issue Combination*
76/79	Filler	X(4)	Unused
80	Number of Items on this Record	9(1)	Count of the number of return details included on this record (1 to 4).

Record Code 183 - Affidavit Detail – Single entry format – for use **ONLY** with STRT

Each record will hold only one BIPAD/Issue.

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	The BIPAD Code identifying the magazine for the Nth item, of a possible four items, to be returned.
17/20	UPC Issue	9(4)	The code identifying the issue for the Nth item, of a possible four items, to be returned. (Format is YYAA where YY is the last digits of the year and AA are the magazine's add-on code.)
21/27	Quantity	9(7)	The number of copies of this issue for the Nth item, of a possible four items, for which credit is being requested.
28/80	Filler	X(53)	Unused

3.8 Book Adjustments

3.8.1 Record Types

Book adjustment memos are transmitted from the National Distributor to its Trading Partner

The following record types are used for book adjustments:

Code	Description
230	Adjustment Header
232	Sales Adjustment Detail
233	Sales Adjustment Title and Reference Information
234	Sales Adjustment Comment
235	Non-Sales Adjustment Detail
236	Non-Sales adjustment Detail Description

- Each adjustment will be preceded by an adjustment header specifying the adjustment number, total number of records in the adjustment (including detail and comment), net copies being adjusted, and total adjustment dollar amount.

- Two types of transactions may be included in the adjustment:
  - .. Sales transactions
  - .. Non-sales transactions

- Sales transactions are those adjustments relating to a specific book. Examples of sales transactions might include shortages and reorders.

- Non-sales transactions are used for debits and credits that are not related to a specific book. Examples might include freight charges and rack charges.

- Sales transactions will be specified using record types 232, 233 and 234. Record type 232 specifies the book to which the transaction applies, as well as the adjustment quantity, dollar amount and a code indicating the type of adjustment.

- Each detail record may, optionally, be followed by a title and reference record and/or a comment record. The title and reference record can be used to indicate the Wholesaler's reference number for the preceding detail as well as the title of the book being adjusted. The comment record may be used to incorporate free-from messages to the preceding detail.

- Non-sale transactions will be specified using record types 235 and 236. Record type 235 will contain the transaction detail. Each detail will include the dollar amount of the transaction as well as a code indicating the reason for the adjustment.

- Record type 236 may be used to include a description of the transaction recorded on the preceding 235 record.

- Price changes can be included as either a sales or non-sales transaction. Some National Distributors correct the price using a net billing or credit. This would be done via a non-sales adjustment. Others use an accounting reversal and a charge back. This type of correction would be accomplished via a sales adjustment.

3.8.2 Field Descriptions

Record Code 230 - Adjustment Header

Positions From/To	Field Name	Format	Description
12/15	Total Lines	9(4)	The total number of records (detail, comment and description) for this adjustment.
16/21	Adjustment Date	9(6)	The date of the adjustment (Format YYMMDD).
22/31	Adjustment Memo Number	X(10)	The National Distributor's reference number which uniquely identifies this adjustment.
32/39	Net Quantity	S9(8)	The sum of the quantities to be adjusted on all subsequent sales details. May be positive or negative.
40/48	Net Amount	S9(7)v99	The sum of the dollar amounts on all of the subsequent details (sales and non-sales). May be positive or negative (denotes a credit).
49/74	Filler	X(26)	Unused
75/78	Sender Control Id	X(4)	A unique AlphaNumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
79/80	Filler	X(2)	Unused.

Record Code 232 - Sales Adjustment Detail

Positions From/To	Field Name	Format	Description
12/21	ISBN	9(10)	The International Standard Book Number, ISBN, identifying the book to be adjusted.
22/28	Quantity	S9(7)	The number of copies of the book for which an adjustment to be adjusted. May be positive or negative.
29/34	Cover Price	9(4)v99	The cover price of the book to be adjusted.
35/43	Billing Price	9(4)v9(5)	The discounted billing price for this book
44/53	Extension	S9(7)v999	The total adjustment dollar amount for this item (quantity x billing price). Debits will be indicated by a positive value. Credit will be indicated by a negative value.
54/60	Publisher Book Number	9(7)	The non-ISBN identification number used by the publisher for this title.
61/78	Filler	X(18)	Unused
79/80	Adjustment Code	X(2)	A code clarifying the reason for the adjustment: SO - Shortage/Overage RS - Shortage/Overage Reversal TR - Transfer (from) TT - Transfer (to) RO - Reorder NS - Non-shipment SR - Suspended return credit PC - Price change OT - Other

Record Code 233 - Sales Adjustment Title and Reference Information

Positions From/To	Field Name	Format	Description
12/21	ISBN	9(10)	The International Standard Book Number, ISBN, identifying the book for which an adjustment is being made.
22/31	Wholesaler's Reference Number	X(10)	Reference number used by wholesaler to match this transaction to his files.
32/61	Title	X(30)	The title associated with the ISBN for the book to be adjusted.
62/80	Filler	X(19)	Unused

Record Code 234 - Sales Adjustment Comment

Positions From/To	Field Name	Format	Description
12/21	ISBN	9(10)	The International Standard Book Number, ISBN, identifying the book for which an adjustment is being made.
22/80	Comment	X(59)	Free-form message concerning the preceding adjustment.

Record Code 235 - Non-Sales Adjustment Detail

Positions From/To	Field Name	Format	Description
12/21	Wholesaler's Reference Number	X(10)	Reference number used by Wholesaler to match this transaction to his records.
22/32	Adjustment Dollar Amount	S9(9)v99	The total adjustment dollar amount for this transaction. Debits will be indicated by a positive value. Credits will be indicated by a negative value.
33/78	Filler	X(46)	Unused.
79/80	Adjustment Code	X(2)	A code clarifying the reason for the adjustment: FR - Freight on return FD - Freight on delivery HD - Handling RK - Racks AL - Allowance PN - Price Change ON - Other

Record Code 236 - Non-Sales Adjustment Description

Positions From/To	Field Name	Format	Description
12/80	Description	X(69)	Free-form field which may be used to clarify the reason for the preceding adjustment.

3.9 Book Invoices

3.9.1 Record Types

Book invoices are transmitted from the National Distributor to its Trading Partner.

The following record types are used for book invoices:

Code	Description
270	Invoice Header
271	Invoice detail (Single entry format)
272	Invoice Detail (Ship to not same as bill to - single entry format)
274	Invoice alternate reference
275	Invoice comment
278	Invoice Detail (Compressed multiple entry {4} format)
279	Invoice Detail (Ship to not same as bill to - compressed multiple entry {4} format).

- Each invoice will be preceded by an invoice header specifying the invoice number, total number of records in the invoice (including detail and comment), total number of copies being invoiced, and total invoice dollar amount.

- Following the header will be any of four types of invoice details. In order to reduce the transmission time, the sending national distributor may compress up to four detail items on a single record type 278 or 279. Alternatively, the national distributor may use the corresponding record type 271 or 272 which has a format of one record for each item. Lastly, record types 272 and 279 are used when a book was shipped to a location other than the wholesaler.

  Note that record types 278 and 279 contain only a limited amount of information as compared to the 271 and 272 record types. It does not contain the actual extension and the Publisher's book number. The extension can be easily be calculated by multiplying the quantity by the billing price; standard rounding (.5 or higher rounds up whereas .49999 or less rounds down) needs to be performed on each and every return item, not only on the final total.

- Both new releases and reorders will be billed using these record types. Furthermore, these record types may also be used to document reorders that could not be filled as requested. An explanation code is included that clarifies the reason for the change.

- Each invoice item may, optionally, be followed by an alternate reference record. This record may be used to record reference information that may further help the wholesaler to identify this order, such as the customers purchase order number.

- Each invoice item may, optionally, be followed by a comment record. The comment record may be used to include messages relating to the specific invoiced item.

3.9.2 Field Descriptions

Record Code 270 - Invoice Header

Positions From/To	Field Name	Format	Description
12/15	Total Lines	9(4)	The total number of records (271, 272, 274, 275, 278 and 279) for this invoice.
16/21	Process Date	9(6)	The date the data was processed by the National Distributor (Format YYMMDD).
22/31	Invoice Number	X(10)	The National Distributor's reference number which uniquely identifies this invoice.
32/39	Total Quantity	9(8)	The total of all the quantity fields on record types 271, 272, 278 and 279 for this invoice.
40/48	Total Invoice	9(7)v99	The total dollar amount for this invoice. It is equal to the sum of the extensions for each 271 and 272 record type added to the product of quantity and billing price (appropriately rounded) for each 278 and 279 record type.
49/74	Filler	X(26)	Unused
75/78	Sender Control Id	X(4)	A unique AlphaNumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
79/80	Filler	X(2)	Unused.

Record Code 271 - Invoice Detail (Single entry format)

Positions From/To	Field Name	Format	Description
12/21	ISBN	9(10)	The International Standard Book Number, ISBN, identifying the book or prepack to be invoiced.
22/28	Quantity	9(7)	The number of copies of the book (or units of the prepack) to be invoiced.
29/34	Cover Price	9(4)v99	The cover price of the book (or the value of the prepack) to be invoiced.
35/43	Billing Price	9(4)v9(5)	The discounted billing price for this book or prepack. (Will be zero for reorder requests that could not be filled).
44/53	Extension	9(7)v999	The total dollar amount for this book or prepack (quantity x billing price).
54/60	Publisher Book Number	9(7)	The non-ISBN identification number used by the publisher for this title.
61/78	Filler	X(18)	Unused
79/80	Explanation Code	X(2)	A code clarifying the status of the requested order or reorder: SB - Book substituted OS - Out of stock BO - Back order NY - Not yet published OP - Out of print

Record Code 272 - Invoice Detail (Ship to not same as Bill to) (Single entry format)

Positions From/To	Field Name	Format	Description
12/21	ISBN	9(10)	The International Standard Book Number, ISBN, identifying the book or prepack to be invoiced.
22/28	Quantity	9(7)	The number of copies of the book (or units of the prepack) to be invoiced.
29/34	Cover Price	9(4)v99	The cover price of the book (or the value of the prepack) to be invoiced.
35/43	Billing Price	9(4)v9(5)	The discounted billing price for this book or prepack. (Will be zero for reorder requests that could not be filled).
44/53	Extension	9(7)v999	The total dollar amount for this book or prepack (quantity x billing price).
54/60	Publisher Book Number	9(7)	The non-ISBN identification number used by the publisher for this title.
61/68	Ship To Account	X(8)	The number of the account to which the books were shipped
69/78	Filler	X(10)	Unused
79/80	Explanation Code	X(2)	A code clarifying the status of the requested order or reorder: SB - Book substituted OS - Out of stock BO - Back order NY - Not yet published OP - Out of print

Note: Record type 272 is identical to record type 271 except that the Ship To Account is added.

Record Code 274 - Invoice Alternate Reference

Positions From/To	Field Name	Format	Description
12/21	ISBN	9(10)	The International Standard Book Number, ISBN, identifying the book or prepack to be invoiced.
22/51	Title	X(30)	The title of the book to be invoiced.
52/63	Customer Purchase Order Number	X(12)	The purchase order number on the order received from the Wholesaler requesting this ISBN.
64/79	Internal Reference number	X(16)	May be used to record an internal identification assigned to this order by the National Distributor.
80	Filler	X(1)	Unused

Record Code 275 - Invoice Comment

Positions From/To	Field Name	Format	Description
12/21	ISBN	9(10)	The International Standard Book Number, ISBN, identifying the book or prepack to be invoiced.
22/80	Comment	X(59)	Free-form message concerning a specific book or prepack.

Record Code 278 - Invoice Detail (Multiple entry format)

(Compressed record type as described in Appendix A). Each record will hold up to four different ISBN's using thirty-two (32) positions.

Positions From/To	(Decompressed) Field Name	Format	Description
14/45	*1st Group*		*ISBN*
14/23	ISBN	9(10)	The International Standard Book Number, ISBN, for the Nth item, of a possible four items, on this 278 record identifying the book or prepack to be invoiced.
24/29	Quantity	9(6)	The number of copies of the book (or units of the prepack), for the Nth item, of a possible four items, on this 278 record to be invoiced. The quantity must be a positive number and must not exceed 999,999 copies. If this item does not meet this criteria, then it cannot be reported on this 278 record but rather on its own 271 record.
30/34	Cover Price	9(3)v99	The cover price of the book (or value of the prepack) for the Nth item, of a possible four items, on this 278 invoice record. The cover price must be a positive number and must not exceed $999.99. If this item does not meet this criteria, then it cannot be reported on this 278 record but rather on its own 271 record.
35/42	Billing Price	9(3)v9(5)	The discounted billing price for the Nth item, of a possible four items, on this 278 record for this book or prepack. (Will be zero for reorder requests that could not be filled). The billing price must be a positive number and must not exceed $999.99999. If this item does not meet this criteria, then it cannot be reported on this 278 record but rather on its own 271 record.
43/45	Explanation Code	X(3)	A code for the Nth item, of a possible four items, on this 278 record clarifying the status of the requested order or reorder: X01 - Book substituted X02 - Out of stock X03 - Back order X04 - Not yet published X05 - Out of print
46/77	*2nd Group*		*ISBN*
78/109	*3rd Group*		*ISBN*
110/141	*4th Group*		*ISBN*
142/159	Filler	X(18)	Unused
160	Number of items on record	9(1)	Count of the number of items on this record (1 to 4).

Record Code 279 - Invoice Detail for Ship to not same as Bill to (Multiple entry format)

(Compressed record type as described in Appendix A). Each record will hold up to four different ISBN's using thirty-two (32) positions.

Positions From/To	(Decompressed) Field Name	Format	Description
14/45	*1st Group*		*ISBN*
14/23	ISBN	9(10)	The International Standard Book Number, ISBN, for the Nth item, of a possible four items, on this 279 record identifying the book or prepack to be invoiced.
24/29	Quantity	9(6)	The number of copies of the book/prepack units, for the Nth item, of a possible four items, on this 279 invoice record. The quantity must be a positive number and must not exceed 999,999 copies. If this item does not meet this criteria, then it cannot be reported on this 279 record but rather on its own 272 record.
30/34	Cover Price	9(3)v99	The cover price of the book (or value of the prepack) for the Nth item, of a possible four items, on this 279 invoice record. The cover price must be a positive number and must not exceed $999.99. If this item does not meet this criteria, then it cannot be reported on this 279 record but rather on its own 272 record.
35/42	Billing Price	9(3)v9(5)	The discounted billing price for the Nth item, of a possible four items, on this 279 record for this book or prepack. (Will be zero for reorder requests that could not be filled). The billing price must be a positive number and must not exceed $999.99999. If this item does not meet this criteria, then it cannot be reported on this 279 record but rather on its own 272 record.
43/45	Explanation Code	X(3)	A code for the Nth item, of a possible four items on this 279 record clarifying the status of the requested order or reorder: X01 - Book substituted X02 - Out of stock X03 - Back order X04 - Not yet published X05 - Out of print
46/77	*2nd Group*		*ISBN*
78/109	*3rd Group*		*ISBN*
110/141	*4th Group*		*ISBN*
142/149	Ship To Account	X(8)	The number of the account to which the books were shipped
150/159	Filler	X(10)	Unused
160	Number of items on record	9(1)	Count of the number of items recorded on this record (1 to 4).

Note: Record type 279 is identical to record type 278 except that the Ship To Account is added.

3.10 Book Credit Memos

3.10.1 Record Types

Book credit memos are transmitted from the National distributor to its Trading Partner.

The following record types are used for book credit memos:

Code	Description
280	Credit Memo Header
281	Credit memo Detail (single entry format)
285	Credit Memo Comment
288	Credit Memo Detail (Compressed multiple entry {4} format)

- Each Credit Memo will be preceded by a Credit Memo Header, specifying the credit memo number, total number of records in the credit memo (including detail and comment), total number of copies being credited, total credit memo dollar amount, and total number of refused returns.

- Following the header will be either of two types of credit memo details. In order to reduce the transmission time, the sending national distributor may compress up to four detail items on a single record type 288. Alternatively, the national distributor may use a record type 281 which has a format of one record for each item. Record types 281 and 288 will be used for both accepted and refused returns. Refused returns will be identified by an explanation code.

  Note that a record type 288 contains only a limited amount of information as compared to the 281 record type. It does not contain the actual extension and the publisher's book number. The extension can be easily be calculated by multiplying the quantity by the billing price; standard rounding (.5 or higher rounds up whereas .49999 or less rounds down) needs to be performed on each and every return item, not only on the final total.

- Each return item may, optionally, be followed by a comment record. The comment record may be used to include messages relating to the specific returned item.

3.10.2 Field Descriptions

Record Code 280 - Credit Memo Header

Positions From/To	Field Name	Format	Description
12/15	Total Lines	9(4)	The total number of records (281, 285 and 288) for this credit memo.
16/21	Process Date	9(6)	The date the data was processed by the National Distributor (Format YYMMDD).
22/31	Credit Memo Number	X(10)	The National Distributor's reference number which uniquely identifies this credit memo.
32/39	Total Accepted	9(8)	The total of all the quantity fields on record types 281 and 288 for all accepted return items for this credit memo.
40/48	Total Credit	9(7)v99	The total dollar amount for this credit memo. It is equal to the sum of the extensions for each 281 record type added to the product of quantity and billing price (appropriately rounded) for each 288 record type for each accepted return item.
49/54	Wholesaler Date	9(6)	The date of the return as specified by the Wholesaler (Format YYMMDD).
55/62	Total Refused	9(8)	The total of all the quantity fields on record types 281 and 288 for all rejected return items for this credit memo.
63/72	Wholesaler Credit Memo Number	X(10)	The reference number used by the wholesaler to uniquely identify this return.
73/77	Publisher Number	9(5)	Code assigned by the National Distributor to a publisher or book line. Used if the National Distributor issues separate credit memos by publisher or book line.
78/80	Sender Control Id	X(3)	A unique AlphaNumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient (Since all other transactions use a 4 character id and this uses only a 3 character id, it is recommended that a “blank” be implied as the first position of this id)

Record Code 281 - Credit Memo Detail (Single entry format)

Positions From/To	Field Name	Format	Description
12/21	ISBN	9(10)	The International Standard Book Number, ISBN, identifying the book or prepack to be credited.
22/28	Quantity	9(7)	The number of copies of the book (or units of the prepack) to be credited.
29/34	Cover Price	9(4)v99	The cover price of the book (or the value of the prepack) to be credited.
35/43	Billing Price	9(4)v9(5)	The discounted billing price for this book or prepack.
44/53	Extension	9(7)v999	The total dollar amount for this book or prepack (quantity x billing price).
54/60	Publisher Book Number	9(7)	The non-ISBN identification number used by the publisher for this title.
61/78	Filler	X(18)	Unused
79/80	Explanation Code	X(2)	A code clarifying the action taken on this return: RC - Accepted/Returned Cover RF - Accepted/Returned Full DS - Accepted/Non-Shipment RA - Accepted/Returned Allot RL - Refused/Late RN - Refused/Negative Sale NP - Refused/Not Our Pub DC - Discrepancy/Double Chkd

Note: Explanation code DC - Quantity specified has been accepted; however, due to a discrepancy the quantity in not equal to that requested by the Wholesaler.

Record Code 285 - Credit Memo Comment

Positions From/To	Field Name	Format	Description
12/21	ISBN	9(10)	The International Standard Book Number, ISBN, identifying the book or prepack to be credited.
22/80	Comment	X(59)	Free-form message concerning a specific book or prepack.

Record Code 288 - Credit Memo Detail (Multiple entry format)

(Compressed record type as described in Appendix A). Each record will hold up to four different ISBN's using thirty-two (32) positions.

Positions From/To	(Decompressed) Field Name	Format	Description
14/45	*1st Group*		*ISBN*
14/23	ISBN	9(10)	The International Standard Book Number, ISBN, for the Nth item, of a possible four items, on this 288 record identifying the book or prepack to be credited.
24/29	Quantity	9(6)	The number of copies of the book (or units of the prepack), for the Nth item, of a possible four items, on this 288 record to be credited. The quantity must be a positive number and must not exceed 999,999 copies. If this item does not meet this criteria, then it cannot be reported on this 288 record but rather on its own 281 record.
30/34	Cover Price	9(3)v99	The cover price of the book (or value of the prepack) for the Nth item, of a possible four items, on this 288 record to be credited. The cover price must be a positive number and must not exceed $999.99. If this item does not meet this criteria, then it cannot be reported on this 288 record but rather on its own 281 record.
35/42	Billing Price	9(3)v9(5)	The discounted billing price for the Nth item, of a possible four items, on this 288 record for this book or prepack. The billing price must be a positive number and must not exceed $999.99999. If this item does not meet this criteria, then it cannot be reported on this 288 record but rather on its own 281 record.
43/45	Explanation Code	X(3)	A code for the Nth item, of a possible four items, on this 288 record clarifying the action taken on this return: X01 - Accepted/Returned Cover X02 - Accepted/Returned Full X03 - Accepted/Non-Shipment X04 - Accepted/Returned Allot X05 - Refused/Late X06 - Refused/Negative Sale X07 - Refused/Not Our Pub X08 - Discrepancy/Double Chkd
46/77	*2nd Group*		*ISBN*
78/109	*3rd Group*		*ISBN*
110/141	*4th Group*		*ISBN*
142/159	Filler	X(18)	Unused
160	Number of items on record	9(1)	Count of the number of items recorded on this record (1 to 4).

Note: Explanation code X08 - Quantity specified has been accepted; however, due to a discrepancy the quantity in not equal to that requested by the Wholesaler.

3.11 Reserved

3.12 Reserved

3.13 Internal Statistics

3.13.1 Record Types

This category is used to pass internal statistical data from the EMS computer center to EMS users.

The following record types are available for transmitting this data:

Code	Description
700	Statistics Header
701	Mailbox Master
706	Session Statistics (Compressed multiple entry {12} format)

- The 701 record type is made up of a 701-A, 701-B and 701-C record. These records should be concatenated together to create a full mailbox master record.

- EMS will only send record formats 701 (A/B/C) upon request. This may be requested at anytime during the month by anyone using the EMS system.

- The session record format takes advantage of EMS' compression feature. It will allow up to twelve "receiving ID/Group Category" combinations on a single record.

- A unique session is made up of four components:
  - The date the session was initiated
  - The time of day the session was initiated
  - The logical line number and/or port on which the session transmitted
  - AND The sending mailbox/id number.

- The EMS computer center will automatically send all record type 706 once per month to any IPDA member that has requested this data. The IPDA member will receive all the transactions that occurred for the previous month. This would include not only transactions that are sent to/from themselves, but those transactions sent to/from everyone else in the system as well.

- Group Category/Header codes:

010	General Message	230	Book Adjustments
020	Statements	250	Book Purchase Order Ack
030	Magazine Adjustments	270	Book Invoices
050	Magazine Allotments	280	Book Credit Memos
060	PICS Database	700	Internal Statistics
070	Magazine Invoices	Others yet to be defined	
080	Mag Credit Memos		
090	Bindery Transfer		
180	Magazine Affidavits		

- The record count field on the 706 record format can only go as high as 999. Therefore if any group category within a session exceeds that number, it needs to be split into several components that, when taken together, will add up to the total record count for that group category. For example if the total for the group category is 2,350 then it would be split into three records. The first for 999, the second for 999 and the third would have 352.

- A record type 706 will only be sent if the transmission was successful. EMS' computer center will filter out abended records before creating the transmission file.

- The record type 706 for any given month will be available only from the second business day through the last day of the month following the activity period.

- The header record type 700 provide a record count for all continuous 80 byte records in the "70x" group. It will also provide a further check, the total number of each of record counts (up to twelve) on record type 706.

3.13.2 Field Description

Record Code 700 - Statistics Header

Positions From/To	Field Name	Format	Description
12/15	Total Lines	9(4)	The total number of statistic and support records (701, 706).
16/22	Total session records	9(7)	The total of all (up to twelve) the record counts on record type 706
23/80	Filler	X(58)	Unused

Record Code 701 (A) - Mailbox Master (Name/City)

Positions From/To	Field Name	Format	Description
12/12	Record Expander	X(1)	Value "A"
13/16	Mailbox ID	9(4)	EMS mailbox number
17/46	Name	X(30)	Name of EMS mailbox user
47/66	City	X(20)	City of EMS mailbox user
67/68	State	X(2)	State/Province of EMS mailbox user
69/80	ZIPCODE	X(12)	Postal Code of EMS mailbox user: USA/ZIP "99999-999999" Canada Code "ANA-NAN^^^"

Record Code 701 (B) - Mailbox Master (Address)

Positions From/To	Field Name	Format	Description
12/12	Record Expander	X(1)	Value "B"
13/16	Mailbox ID	9(4)	EMS mailbox number
17/46	Address-1	X(30)	First line of Address of EMS mailbox user.
47/76	Address-2	X(30)	Second line of Address of EMS mailbox user.
77/78	Base Computer System	X(2)	Code identifying which service company built the computer system under which the wholesaler operates.
79/80	Filler	X(2)	Unused

Record Code 701 (C) - Mailbox Master (Misc)

Positions From/To	Field Name	Format	Description
12/12	Record Expander	X(1)	Value "C"
13/32	Contact	X(20)	Name of Contact at Mailbox Site
33/52	Phone	X(20)	Phone Number of Contact
53/60	Date Last Accessed	9(6)	YYMMDD of the last time this mailbox was accessed.
61/80	Filler	X(20)	Unused

Record Code 706 - Session Statistics (Multiple entry format)

(Compressed record type as described in Appendix A) Each record will hold up to twelve different statistics each using (10) Positions.

Positions From/To	Field Name	Format	Description
14/19	Date	9(6)	The date (YYMMDD) the session was started. This field makes up part of the unique session number.
20/25	Time	9(6)	The time (HHMMSS) the session was started. This field makes up part of the unique session number.
26/29	Receive/Send Method or Identifier	9(4)	The logical incoming/outgoing method. This field makes up part of the unique session number. 0xxx is a telephone line identifier NNNN may represent other forms such as tape
30/33	Sending ID	9(4)	The mailbox number of the sending party. This field makes up part of the unique session number.
34/38	Filler	X(5)	Unused
39/48	*1st Group*		*Session Group Category*
39/42	Receiving ID	9(4)	The mailbox number of the receiving party
43/45	Group Type	9(3)	The group header identifier (see above)
46/48	Record Count	9(3)	The number of records (number of 80 byte, not the occurrences on the 80 byte record). If the number of records for this group type exceed 999, then more than one component would be used (see above).
49/58	*2nd Group*		*Session Group Category*
59/68	*3rd Group*		*Session Group Category*
69/78	*4th Group*		*Session Group Category*
79/88	*5th Group*		*Session Group Category*
89/98	*6th Group*		*Session Group Category*
99/108	*7th Group*		*Session Group Category*
109/118	*8th Group*		*Session Group Category*
119/128	*9th Group*		*Session Group Category*
129/138	*10th Group*		*Session Group Category*
139/148	*11th Group*		*Session Group Category*
149/158	*12th Group*		*Session Group Category*
159/160	Number of items on record	9(2)	Count of number of items recorded on this record (1 to 12)

3.14 Internal Statistics

3.14.1 Record Types

This category managed by EMS and is for internal use only

The following record types are available for transmitting this data:

Code	Description
700	Functional Acknowledgement Header
712	Transaction Set Sent To EMS
713	Transaction Set Picked Up From EMS

- A Carbon Copy is requested by placing one or more "981" Record Formats after the last detail record of any transaction set and before the next transaction begins.

- If there is a transaction set being placed into a CC's mailbox, as determined by the Receiver's ID field not being equal to the mailbox into which the transaction is placed, the CC ID from the 981 is placed in Record Format 712's CC ID field. If it is a normal send receive transaction set, then the CC ID field should be set equal to "0000"

- If a transaction set being picked up from a mailbox where the Receiver's ID is not equal to the EMS ID of the mailbox being picked up, then the 713 CC ID field should be populated with mailbox number picking up the transaction set. If it is a normal send receive transaction set, then the CC ID field should be set equal to "0000". It is possible that when a recipient picks up its mailbox that the mailbox contains both normal send receive, as well as C,C transactions sets. Only the CC ID field of the CC Transaction sets would be populated with the mailbox number, the others would be zero. For example: for picking up transactions from Mailbox 3456:

    - 0035 3456 050 (CC ID set equal to 0000)
    - 0040 1234 050 (CC ID set equal to 3456)
    - 0040 3456 050 (CC ID set equal to 0000)
    - 0040 7777 050 (CC ID set equal to 3456)
    - 0040 7777 070 (CC ID set equal to 3456)

3.14.2 Field Description

Record Code 710 - Functional Acknowledgement Header

Positions From/To	Field Name	Format	Description
1	*Variable*	*X(1)*	*Value "V"*
2/6	*Record Length*	*9(5)*	*Value "00044" The length of the transaction data in bytes*
7/10	*From ID*	*9(4)*	*Value "0000"*
11/14	*To ID*	*9(4)*	*Actual Sender ID for the Transaction Set.*
15/17	*Record Code*	*9(3)*	*Value "710"*
18/23	Record Count	9(6)	Count of the number of 712 and 713 Record that follow
24/50	Filler	X(27)	Unused

Record Code 712 - Functional Acknowledgement – Transaction set sent to EMS

Positions From/To	Field Name	Format	Description
1	*Variable*	*X(1)*	*Value "V"*
2/6	*Record Length*	*9(5)*	*Value "00044" The length of the transaction data in bytes*
7/10	*From ID*	*9(4)*	*Value "0000"*
11/14	*To ID*	*9(4)*	*Actual Sender ID for the Transaction Set.*
15/17	*Record Code*	*9(3)*	*Value "712"*
18/23	Date	9(6)	Date Processed by EMS
24/29	Time	9(6)	Time Processed by EMS
30/33	Receiver ID	9(4)	Original Receiver
34/36	Transaction Set Family	9(3)	Transaction Family Being Sent
37/41	Record Count	9(5)	Number of Records Sent in the Transaction Set
42/45	Control ID	X(4)	Unique Identifier assigned to this single transaction set
46	Status	X(1)	"O" – Okay "I" – Invalid Mailbox
47/50	CC ID	9(4)	EMS Id to whom Carbon Copy was Sent or if not a CC then "0000"

Record Code 713 - Functional Acknowledgement – Transaction set picked up from EMS

Positions From/To	Field Name	Format	Description
1	*Variable*	*X(1)*	*Value "V"*
2/6	*Record Length*	*9(5)*	*Value "00044" The length of the transaction data in bytes*
7/10	*From ID*	*9(4)*	*Value "0000"*
11/14	*To ID*	*9(4)*	*Actual Sender ID for the Transaction Set.*
15/17	*Record Code*	*9(3)*	*Value "713"*
18/23	Date	9(6)	Date Picked Up by Recipient
24/29	Time	9(6)	Time Picked Up by Recipient
30/33	Receiver ID	9(4)	Original Receiver
34/36	Transaction Set Family	9(3)	Transaction Family Being Picked Up
37/41	Record Count	9(5)	Number of Records Picked Up in the Transaction Set
42/45	Control ID	X(4)	Unique Identifier assigned to this single transaction set
46	Status	X(1)	"O" – Okay "R" – Re-Receive
47/50	CC ID	9(4)	EMS Id who picked up the Carbon Copy or if not a CC then "0000"

3.15 Electronic Authorization Management / EAM

3.15.1 Record Types

This category is used to synchronize Wholesaler authorization lists with PICS for the purpose of GDSN (Global Data Synchronization Network)

The following record types are available for transmitting this data:

Code	Description
322	Authorization Detail
323	Rejected Authorization Detail
324	Rejected Authorization Header
327	Confirmation Authorization Detail

Please see separate document D201-32x-EAM Specs that outlines this process

3.16 UPC/Cover Price/Title Data

3.16.1 Record Types

UPC/Cover Price/Title data ("PICS") is sent from the national distributor/publisher to EMS for consolidation into an industry-wide universal bar code file. EMS will create the master file and will make it available to any wholesaler or retailer electronically upon electronic request.

The following record types are available for transmitting this draw data:

A) From the national distributor to the EMS System:

Code	Description
060	PICS Header Record
061	PICS Data Record (Record Extenders A & B)
069	PICS Issue Level Data for use only with STRT Software

- IPDA's Transaction Management Software (STRT)
  - Senders who use STRT
    - Sender's software creates the record format 069
    - STRT inputs Record Formats 069 and then outputs modified 060 & 061 record formats
  - Sender would provide data for all issues for the current year, the previous year and the following year
  - Each site using STRT will have the facility to choose the period of time STRT will look back and look forward to choose which issue will be used to create the title level UPC record (see criteria below). STRT will ignore all issues that are outside of the selected range.
  - Each UPC is compared to all the other identical UPCs for the same country.
    1. If one record is on-sale now and the other is not, the on-sale record is selected.
    2. If both are on-sale now, the one with the latest on-sale date is selected.
    3. If both are off-sale and one has a past on-sale date and one has a future on-sale date, the past on-sale date is selected if today's (processing) date is up to 15 days after the past off-sale date, otherwise the future on-sale date is selected.
    4. If both are off-sale and both have a past on-sale date, the one with the latest on-sale date is selected.
    5. If both are off-sale and both have a future on-sale date, the one with the earlier on-sale date is selected.
  - STRT will pre-process the entire 069 input file looking for rejected records. If it finds any, the entire run will be stopped. However, the STRT subscriber will be provided with a report which identifies all the errors within the file. The reason for this is to ensure that a UPC isn't deleted erroneously because its record failed the edit checks.

B) From the EMS System to the national distributor

063	PICS Reject Header
064	PICS Reject Data Record (Record Extenders A, B & C)

C) From the EMS System to the wholesaler (Resulting from an 810 Request)

Code	Description
065	PICS Header Record
066	PICS Data Record (Record Extenders A & B)

- The purpose of this set of transmissions is to allow EMS to consolidate all the UPC/Cover Price/Title data into a single area and make it available to the wholesale/retail community.

- The data provided via the 061 records will be made available to the retail and wholesale community via both the EMS system and the IPDA.org web site.

- A full UPC bar code consists of:
  - Number system 1 digit
  - UPC code 10 digits
  - Self Check Digit 1 digit

  In the formats 06x formats, these fields are not presented in the above sequence, it is up to the recipient to reconstruct the full code. The new code needs to be 12 positions with no leading or embedded blanks.

- A full EAN bar code consists of:
  - Country Code 1 digit
  - Number system 1 digit
  - UPC code 10 digits
  - Self Check Digit 1 digit

  In the formats 06x formats, these fields are not presented in the above sequence, it is up to the recipient to reconstruct the full code. The new code needs to be 13 positions with no leading or embedded blanks.

- The 061 record format is made up of multiple records. The Number System; UPC Code; Self Check Digit; Country Code and Country create the record uniqueness which will allow the receiver to reconstruct the multiple record expanders into a full record. A complete 061 is made up of two extender records an “A” and a “B”. Within the transmission, the “B” extender must follow the “A”. It is possible to have an “A” without a “B”, but it is not possible to have a “B” without an “A”. The 060 record format will be used by EMS to insure that it received a complete transmission and in the event of multiple transmissions, which is the latest.

- The retail community doesn't use the BIPAD for purposes of scanning, they use the UPC code. In their store's computer, there is a title and cover price associated with each unique UPC code. The magazine industry must be very careful when it comes to using the UPC codes with respect to changing of cover prices. Currently, the magazine industry changes the company prefix of the UPC with each cover price change. In order to accommodate using Point of Sale data for analysis or other purposes, it may become necessary for a title to flip/flop the company prefix between issues as well. It must be noted that if a national distributor/publisher chooses to reuse a UPC, or more likely a suppressed UPC code, it would need to wait a sufficient period of time to insure that the retail community no longer has any product using the old UPC code.

- The concept of Life-to-death BIPAD's may become a requirement in the long term.

- The national distributor/publisher periodically creates an 061 record format for: each active; soon to be active; and recently past active UPC/cover price title on its files. When a national distributor/publisher feels that the retailer will no longer be scanning a discontinued UPC/cover price, it may eliminate it from the file it sends to EMS. This would be for both discontinued titles and discontinued cover prices. It is the national distributors/publishers responsibility to insure that this file contains each and every UPC/cover price combination that could be scanned by a retailer from the day they create the file and into the future for at least 90 days back and up to 45 days forward. A national distributor/publisher may transmit as often as it chooses but not less than once per week. By using multiple transmissions a national distributor can advise the wholesalers of

late breaking UPC/cover price combinations. For this reason, it is suggested that the Wholesaler/Retailer request and use the data on a daily basis.

- Once per day in the late evening hours, EMS will take each and every national distributor/publisher transmitted 061 record format and destructively overlay it in their master file. The resulting file will have the latest data supplied by the national distributor/publisher available for transmission to the wholesalers/retailers. It will also smooth out any ripples from the varying national distributor/publisher operating schedules. It will be EMS' responsibility while updating the PICS Database to insure that the Parent BIPAD and the Parent Authorization fields are standardized according to 066 record format specifications. EMS will also insure that: the UPC code is in a valid format with a corresponding self check digit; the self check digit is accurate; the cover price is a positive number; the title field is not blank; and the BIPAD is not zero. If EMS identifies a validation error, it will return the offending record back to the sender using record types 063 and 064. EMS will create two sets of output files (record formats 065 and 066), one for the United States and one for Canada. During the creation process of record format 065 and 066, EMS needs to force the sender field to be "0009" and the receiver field to be "0000". Note that this should only be on record formats 065 and 066, not in the PICS Database.

- **It is strongly recommended that the provider of UPC codes only use full UPC codes, not Suppressed UPC codes.**

- It should be noted that there is a direct one-to-one relationship between a suppressed UPC code and its full version. No matter which is placed on the cover, the scanner software automatically translates it to the full version before sending it to the application software. For this reason, if the sender is provides a suppressed UPC code, it will be exploded into the full version and the full version will be placed in the PICS database. If the sender sends both the full and the suppressed versions or more than one of any version, only the first one read will be used; all the other ones, whether or not they are suppressed or full, will be returned to the sender. There will not be any suppressed codes in the PICS database.

- The following steps need to be performed separately for the Parent BIPAD number and the Parent Authorization number -- operating on a single supplier's transmission at a time:

  - If the Parent BIPAD number field is blank or zero, place the BIPAD number in that field.

  - If the Parent Authorization number field is blank or zero, place the BIPAD number in that field.

  - Sort the incoming file by the Parent BIPAD.

  - Then read the file sequentially and if the Parent BIPAD has only one entry, change it to a zero, otherwise leave the Parent BIPAD number as is.

  - Sort the incoming file by the Parent Authorization.

  - Then read the file sequentially and if the Parent Authorization has only one entry, change it to a zero, otherwise leave the Parent Authorization number as is.

  - Then sort the file into the sequence needed for loading into the PICS database for further processing.

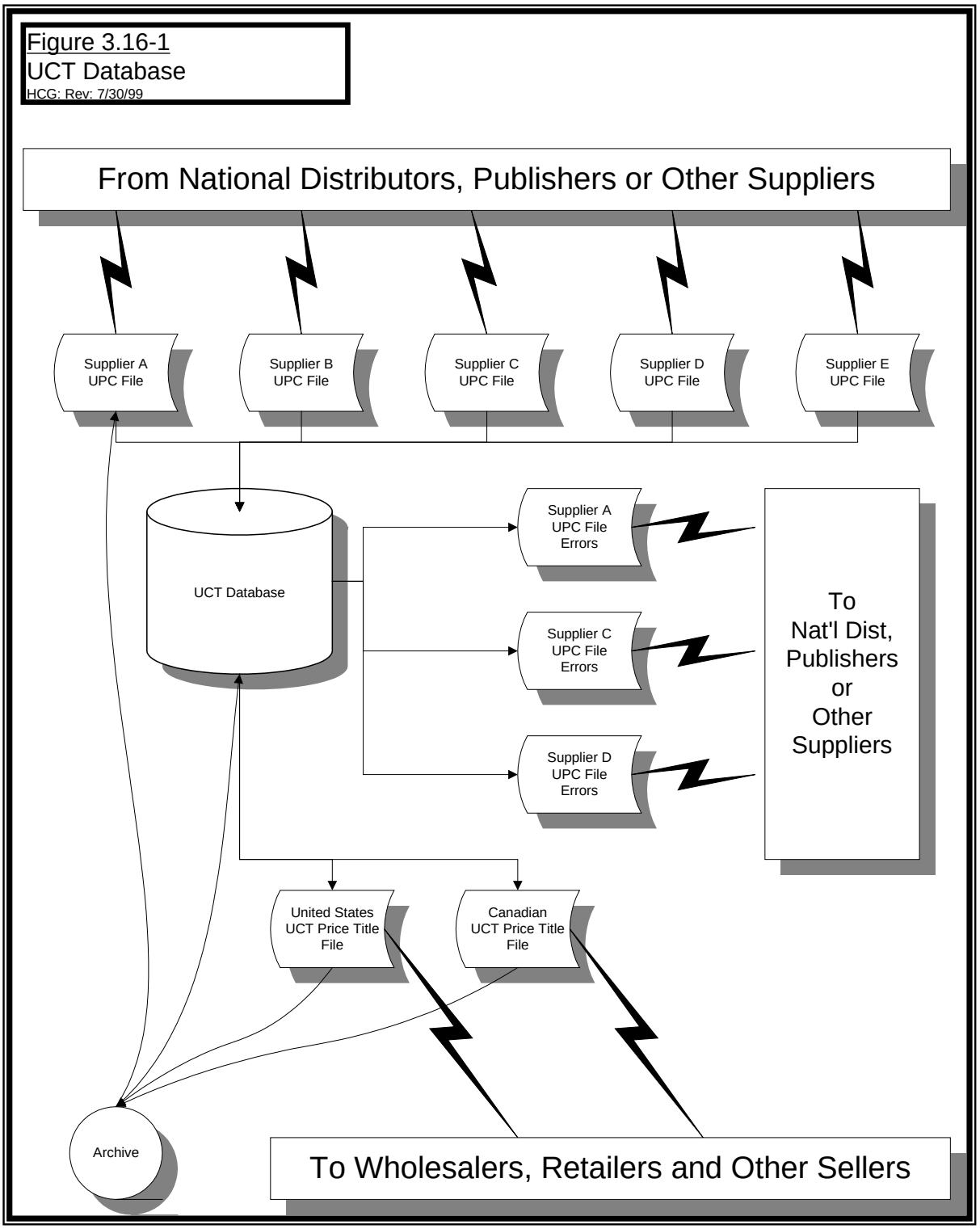
- In some cases, EMS will return the entire transmission. If it does, EMS will place a reason code in the "Return to Sender" field of the 060 record format. The reasons for rejecting the entire transmission are: 'B' - Out of Balance/the detail records do not add up to the hash totals; 'D' - Illegal Date/the date assigned in the 060 header is too far into the future; 'S' - Out of Sync/if the date and time of the transmission being processed is less than the date and time of the last transmission which resides in the PICS database or 'I' – IPDA.org doesn't recognize the ID (possibly need to set up an IPDA.org ID).

- EMS will maintain a UPC ownership relationship between the UPC code and the national distributor/publisher supplying data for that UPC code. The first time a UPC code, either full or suppressed, is sent to EMS, the mailbox number of the company sending in the data will be associated with the UPC as its owner. Once this relationship is created, it will remain there permanently. If the ownership needs to be transferred to another EMS subscriber, it must be accomplished via written communication with IPDA. Note, the owner will not be sent to the wholesaler or retailer.

- Once the ownership relationship has been created, only the mailbox corresponding to the owner will be permitted to make changes to that UPC's data. If a national distributor, other than the owner, submits data for a UPC, the record will be rejected and returned to the submitting national distributor, along with the mailbox number of the owner of record. EMS will also identify on the returned record if the price is the same or different. The record format 064 uses the record expander in column 80. This means that the national distributor needs to use both the 'A' and 'B' records to create a full record. In order to create a full record the Number System; UPC Code; Self Check Digit; Type of Code; and Country fields need to be used to coordinate the record multiple records. In addition, the national distributor/publisher needs to retrieve its data on the day following a PICS transmission to insure that it is advised of any rejected records as soon as possible. Ownership relationships may only be changed by written and/or faxed notice to DPS. It should be further noted that the first national distributor reporting a UPC will automatically be given the ownership of the title. However, if more than one company declares ownership, the company distributing the majority of the product would be given preference via the notification process just described. Record formats 063 and 064 will only be sent back to the supplier if there is either a validation error or conflicting ownership.

- Any time an EMS subscriber wants the latest PICS file for the US or Canada, it would send an EMS command (outlined in Section 4.2). If the request is made by a publisher or national distributor, they would get all the data outlined on Record Format 066 with the exception of cover price.

Figure 3.16-1
UCT Database
HCG: Rev: 7/30/99



3.16.2 Field Description

Record Code 060 - UPC/Cover/Title Header (N/D to EMS)

Positions From/To	Field Name	Format	Description
12/15	Total Lines Original	9(4)	The total number of 061 records (valid only for record counts of up to 9,999)
16/21	Process Date	9(6)	The date (YYMMDD) the data was processed by the national distributor/publisher
22/25	Process Time	9(4)	The time associated with the process date (HH:MM) that the data was processed by the national distributor/publisher. Date and time are required to allow EMS to determine the latest file in the event a national distributor/publisher transmits more than one file between EMS daily update cycles.
26/34	Cover Price Hash Total	9(7)v99	Total of all the cover prices on all the 061 records to be used for balancing this transmission.
35/43	BIPAD Hash Total	9(9)	The total of all the BIPAD's on all the 061 records to be used for balancing this transmission.
44	Created By Identifier	X(1)	Value “X” created by STRT from 069 Input
45/49	Total Lines	9(5)	The total number of 061 records (should be used for all submissions; replaced positions 12 to 15)
50/71	Filler	X(22)	Unused
72/74	Sync Identifier	9(3)	Used by STRT to sync 069 records with 061 & 261
75/78	Sender Control Id	X(4)	A unique AlphaNumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
79	Return to Sender Code	X(1)	Values: 'B' - Out of Balance 'D' - Illegal Date 'S' - Out of Sync 'I' Unrecognized IPDA.org ID
80	Filler	X(1)	Unused

Record Code 061 - UPC/Cover/Title Data (N/D to EMS) (A)

Positions From/To	Field Name	Format	Description
12	Number System	9(1)	The Number System in which this UPC resides or a '0' for a suppressed code.
13/22	UPC Code	9(10)	A UPC code that will be used to designate a specific title (left justified). If position 12 contains a "0", positions 13 to 18 are numeric and positions 19 to 22 are blank, then it is a zero-suppressed barcode.
23	Self Check Digit	9(1)	The internally calculated self check digit associated with the Number system/Mfg/Prod or Suppressed Code.
24	Country Code	X(1)	The country code associated with any UPC/EAN bar code as of 1/1/2005 - Part of the bar code If the field is blank it will be assumed to be a "0" This is actually the leading digit of the bar code regardless of where it is placed in this format
25	Type of Code	X(1)	Value "U"
26	Country	X(1)	Country: Value "U" for USA Value "C" for Canada (Note if the UPC and Cover price is the same in the US and Canada, the National Distributor needs to still send two records.)
27/31	Cover Price	9(3)v99	The cover price associated with this UPC for the US or Canada (based on the above field).
32/36	BIPAD Number	9(5)	The industry number by which this title is identified.
37/41	Parent BIPAD	9(5)	The BIPAD Number of the parent title, if any, otherwise it should contain a zero value or the same BIPAD number as above.
42/46	Parent Authorization	9(5)	The BIPAD Number of the title under which an authorization group is handled. For example if a group of special interest titles are authorized simultaneously to distribution, then the master product/BIPAD number would be placed here. A zero value or the BIPAD Number from above should be used if Parent Authorization doesn't apply.
47/48	Issues per Year	9(2)	The number of published issues per year for this title.
49/73	Title	X(25)	The title associated with this UPC code and BIPAD. This system will only allow a single title per BIPAD. It is the national distributor's responsibility to insure that there is only one title supplied per BIPAD. If a special interest publication has four names, one for each quarter, EMS will only be able to carry one in its title file. If more than one is submitted, EMS cannot guarantee which one will be used.
74/78	Editorial Category	9(5)	A yet to be defined industry standard magazine editorial category (see table below).
79	Filler	X(1)	Unused
80	Record Expander	X(1)	Value 'A'

Record Code 061 - UPC/Cover/Title Data (N/D to EMS) (B)

Positions From/To	Field Name	Format	Description
12	Number System	9(1)	The Number System in which this UPC resides or a '0' for a suppressed code.
13/22	UPC Code	9(10)	A UPC code that will be used to designate a specific title (left justified). . If position 12 contains a “0”, positions 13 to 18 are numeric and positions 19 to 22 are blank, then it is a zero-suppressed barcode
23	Self Check Digit	9(1)	The internally calculated self check digit associated with the Number system/Mfg/Prod or Suppressed Code.
24	Country Code	X(1)	The country code associated with any UPC/EAN bar code as of 1/1/2005 - Part of the bar code If the field is blank it will be assumed to be a “0” This is actually the leading digit of the bar code regardless of where it is placed in this format
25	Type of Code	X(1)	Value "U"
26	Country	X(1)	Country: Value "U" for USA Value "C" for Canada (Note if the UPC and Cover price is the same in the US and Canada, the National Distributor needs to still send two records.)
27/34	Publisher Code	X(8)	An alphanumeric code identifying the supplier’s internal code for the publisher of the UPC. This will be used to allow the publisher to receive its bar codes via EMS or the web site
35/54	Publisher Desc	X(20)	A short name identifying the publisher. It may or may not need to be associated with the Publisher Code above. This will allow a retailer to know which publisher created this title.
55/79	Filler	X(25)	Unused
80	Record Expander	X(1)	Value 'B'

Record Code 063 - UPC/Cover/Title Reject Header (EMS to N/D)

Positions From/To	Field Name	Format	Description
12/15	Total Lines	9(4)	The total number of 064 records
16/21	Process Date	9(6)	The date (YYMMDD) the data was originally processed by the national distributor/publisher.
22/25	Process Time	9(4)	The time associated with the process date (HH:MM) that the data was originally processed by the national distributor/publisher. Date and time are required to allow EMS to determine the latest file in the event a national distributor/publisher transmits more than one file between EMS daily update cycles.
26/34	Cover Price Hash Total	9(7)v99	The total of all the cover prices on all the 064 records to be used for balancing this transmission.
35/43	BIPAD Hash Total	9(9)	The total of all the BIPAD's on all the 064 records to be used for balancing this transmission.
44/71	Filler	X(28)	Unused
72/74	Sync Identifier	9(3)	Used by STRT to sync 069 records with 061 & 261
75/78	Sender Control ID	X(4)	A unique AlphaNumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
79/80	Filler	X(2)	Unused

Note: Positions 1 to 4 and 5 to 8 contain "0009" and “ID of recipient (the EMS user that actually sent in this record)” respectively.

Record Code 064 - UPC/Cover/Title Reject Data (EMS to N/D) (A)

Positions From/To	Field Name	Format	Description
12	Number System	9(1)	The Number System in which this UPC resides or a '0' for a suppressed code.
13/22	UPC Code	9(10)	A UPC code that will be used to designate a specific title (left justified). . If position 12 contains a “0”, positions 13 to 18 are numeric and positions 19 to 22 are blank, then it is a zero-suppressed barcode
23	Self Check Digit	9(1)	The internally calculated self check digit associated with the Number system/Mfg/Prod or Suppressed Code.
24	Country Code	X(1)	The country code associated with any UPC/EAN bar code as of 1/1/2005 - Part of the bar code If the field is blank it will be assumed to be a “0” This is actually the leading digit of the bar code regardless of where it is placed in this format
25	Type of Code	X(1)	Value "U"
26	Country	X(1)	Country: Value "U" for USA Value "C" for Canada (Note if the UPC and Cover price is the same in the US and Canada, the National Distributor needs to still send two records.)
27/31	Cover Price	9(3)v99	The cover price associated with this UPC for the US or Canada (based on the above field).
32/36	BIPAD Number	9(5)	The industry number by which this title is identified.
37/41	Parent BIPAD	9(5)	The BIPAD Number of the parent title, if any, otherwise it should contain a zero value or the same BIPAD number as above.
42/46	Parent Authorization	9(5)	The BIPAD Number of the title under which an authorization group is handled. For example if a group of special interest titles are authorized simultaneously to distribution, then the master product/BIPAD number would be placed here. A zero value or the BIPAD Number from above should be used if Parent Authorization doesn't apply.
47/48	Issues per Year	9(2)	The number of published issues per year for this title.
49/73	Title	X(25)	The title associated with this UPC code and BIPAD. This system will only allow a single title per BIPAD. It is the national distributor's responsibility to insure that there is only one title supplied per BIPAD. If a special interest publication has four names, one for each quarter, EMS will only be able to carry one in its title file. If more than one is submitted, EMS cannot guarantee which one will be used.
74/78	Editorial Category	9(5)	A yet to be defined industry standard magazine editorial category (see table below).
79	Filler	X(1)	Unused
80	Record Expander	X(1)	Value 'A'

Note: Positions 1 to 4 and 5 to 8 contain "0009" and “ID of recipient (the EMS user that actually sent in this record)” respectively.

Record Code 064 - UPC/Cover/Title Reject Data (EMS to N/D) (B)

Positions From/To	Field Name	Format	Description
12	Number System	9(1)	The Number System in which this UPC resides or a '0' for a suppressed code.
13/22	UPC Code	9(10)	A UPC code that will be used to designate a specific title (left justified). . If position 12 contains a “0”, positions 13 to 18 are numeric and positions 19 to 22 are blank, then it is a zero-suppressed barcode
23	Self Check Digit	9(1)	The internally calculated self check digit associated with the Number system/Mfg/Prod or Suppressed Code.
24	Country Code	X(1)	The country code associated with any UPC/EAN bar code as of 1/1/2005 - Part of the bar code If the field is blank it will be assumed to be a “0” This is actually the leading digit of the bar code regardless of where it is placed in this format
25	Type of Code	X(1)	Value "U"
26	Country	X(1)	Country: Value "U" for USA Value "C" for Canada
27/30	Conflicting Owner	9(4)	The Mailbox number of the national distributor/supplier maintaining current ownership of this UPC code.
31	Price Check	X(1)	Validates the fact that PICS contains the same price for the country (Only used in conjunction with Conflicting Owner). blank or 'Y' - Same price 'N' – Different Price
32	UPC format	X(1)	blank – UPC Format OK 'N' - UPC Format not either:
33	Self Check Digit	X(1)	blank – Okay 'N' – Invalid Self Check Digit
34	Cover Price	X(1)	blank – Okay 'N' – Invalid Cover Price
35	Title	X(1)	blank – Okay 'N' – Invalid Title
36	BIPAD	X(1)	blank – Okay 'N' – Invalid BIPAD
37	Duplicate Record	X(1)	Blank – Okay ‘N’ - This record was rejected because the same full UPC was already sent within this transmission, whether or not it was sent as a full or suppressed UPC code.
38	Active BIPAD/Title	X(1)	Used in conjunction with Conflicting Owner: blank – Title is Active ’N’ – Title is Inactive
39	BIPAD Ownership	X(1)	Blank – Okay ‘N’ – Cannot place a barcode under a BIPAD which isn’t under your control

Record Code 064 - UPC/Cover/Title Reject Data (EMS to N/D) (B) (Continued)

Positions From/To	Field Name	Format	Description
40	Company Prefix	X(1)	Blank – Okay 'N' – Unknown Company Prefix
41/79	Filler	X(39)	Unused
80	Record Expander	X(1)	Value 'B'

Note: Positions 1 to 4 and 5 to 8 contain "0009" and "ID of recipient (the EMS user that actually sent in this record)" respectively.

Record Code 064 - UPC/Cover/Title Data (N/D to EMS) (C)

Positions From/To	Field Name	Format	Description
12	Number System	9(1)	The Number System in which this UPC resides or a '0' for a suppressed code.
13/22	UPC Code	9(10)	A UPC code that will be used to designate a specific title (left justified). . If position 12 contains a “0”, positions 13 to 18 are numeric and positions 19 to 22 are blank, then it is a zero-suppressed barcode
23	Self Check Digit	9(1)	The internally calculated self check digit associated with the Number system/Mfg/Prod or Suppressed Code.
24	Country Code	X(1)	The country code associated with any UPC/EAN bar code as of 1/1/2005 - Part of the bar code If the field is blank it will be assumed to be a “0” This is actually the leading digit of the bar code regardless of where it is placed in this format
25	Type of Code	X(1)	Value "U"
26	Country	X(1)	Country: Value "U" for USA Value "C" for Canada (Note if the UPC and Cover price is the same in the US and Canada, the National Distributor needs to still send two records.)
27/34	Publisher Code	X(8)	An alphanumeric code identifying the supplier’s internal code for the publisher of the UPC. This will be used to allow the publisher to receive its bar codes via EMS or the web site
35/54	Publisher Desc	X(20)	A short name identifying the publisher. It may or may not need to be associated with the Publisher Code above. This will allow a retailer to know which publisher created this title..
55/79	Filler	X(25)	Unused
80	Record Expander	X(1)	Value 'C'

Note: Positions 1 to 4 and 5 to 8 contain "0009" and “ID of recipient (the EMS user that actually sent in this record)” respectively.

The Record Extender 064 (C) is consistent with the input data 061(B). It is a “C” because the 064 (B) has already been used and cannot be changed for legacy reasons.

Record Code 065 - UPC/Cover/Title Header (EMS to Wholesaler)

Positions From/To	Field Name	Format	Description
12/15	Total Lines	9(4)	The total number of 066 A&B records. If the total lines exceeds 9999 then it should be set equal to the low order 4 digits. Eg: If the number is 123456 then this field should be 3456.
16/21	Process Date	9(6)	The date (YYMMDD) of the file sent to the wholesaler.
22/25	Filler	X(4)	Unused
26/34	Cover Price Hash Total	9(7)v99	The total of all the cover prices on all the 066 records to be used for balancing this transmission.
35/43	BIPAD Hash Total	9(9)	The total of all the BIPAD's on all the 066 records to be used for balancing this transmission.
44/49	Total Lines	9(6)	The total number of 066 A&B records
50/71	Filler	X(22)	Unused
72/74	Sync Identifier	9(3)	Used by STRT to sync 069 records with 061 & 261
75/78	Sender Control ID	X(4)	A unique AlphaNumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
79/80	Filler	X(2)	Unused

Note: Positions 1 to 4 and 5 to 8 contain "0009" and “ID of Recipient” respectively.

Record Code 066 - UPC/Cover/Title Data (EMS to Wholesaler) (A)

Positions From/To	Field Name	Format	Description
12	Number System	9(1)	The Number System in which this UPC resides or a '0' for a suppressed code.
13/22	UPC Code	9(10)	A UPC code that will be used to designate a specific title (left justified). This must be the full barcode, not a zero-suppressed version.
23	Self Check Digit	9(1)	The internally calculated self check digit associated with the Number system/Mfg/Prod or Suppressed Code.
24	Country Code	X(1)	The country code associated with any UPC/EAN bar code as of 1/1/2005 - Part of the bar code If the field is blank it will be assumed to be a "0" This is actually the leading digit of the bar code regardless of where it is placed in this format
25	Type of Code	X(1)	Value "U"
26	Country	X(1)	Country: Value "U" for USA Value "C" for Canada (Note if the UPC and Cover price is the same in the US and Canada, the National Distributor needs to still send two records.)
27/31	Cover Price	9(3)v99	The cover price associated with this UPC for the US or Canada (based on the above field).
32/36	BIPAD Number	9(5)	The industry number by which this title is identified
37/41	Parent BIPAD	9(5)	The BIPAD Number of the parent title, if any, otherwise it should contain the BIPAD Number.
42/46	Parent Authorization	9(5)	The BIPAD Number of the title under which an authorization group is handled. For example if a group of special interest titles are authorized simultaneously to distribution, then the master product/BIPAD number would be placed here. The BIPAD Number should be used if Parent Authorization doesn't apply.
47/48	Issues per Year	9(2)	The number of published issues per year for this title.
49/73	Title	X(25)	The title associated with this UPC code and BIPAD. This system will only allow a single title per BIPAD. It is the national distributor's responsibility to insure that there is only one title supplied per BIPAD. If a special interest publication has four names, one for each quarter, EMS will only be able to carry one in its title file. If more than one is submitted, EMS cannot guarantee which one will be used.
74/78	Editorial Category	9(5)	A yet to be defined industry standard magazine editorial category (see table below).
79	Filler	X(1)	Unused
80	Record Expander	X(1)	Value 'A'

Note: Positions 1 to 4 and 5 to 8 contain "0009" and "ID of Recipient" respectively.

Record Code 066 - UPC/Cover/Title Data (EMS to Wholesaler) (B)

Positions From/To	Field Name	Format	Description
12	Number System	9(1)	The Number System in which this UPC resides or a '0' for a suppressed code.
13/22	UPC Code	9(10)	A UPC code that will be used to designate a specific title (left justified). This must be the full barcode, not a zero-suppressed version.
23	Self Check Digit	9(1)	The internally calculated self check digit associated with the Number system/Mfg/Prod or Suppressed Code.
24	Country Code	X(1)	The country code associated with any UPC/EAN bar code as of 1/1/2005 - Part of the bar code If the field is blank it will be assumed to be a "0" This is actually the leading digit of the bar code regardless of where it is placed in this format
25	Type of Code	X(1)	Value "U"
26	Country	X(1)	Country: Value "U" for USA Value "C" for Canada (Note if the UPC and Cover price is the same in the US and Canada, the National Distributor needs to still send two records.)
27/34	Filler	X(8)	Unused
35/54	Publisher Desc	X(20)	A short name identifying the publisher. It may or may not need to be associated with the Publisher Code above. This will allow recipient to know which publisher created this title.
55/79	Filler	X(25)	Unused
80	Record Expander	X(1)	Value 'B'

Note: Positions 1 to 4 and 5 to 8 contain "0009" and "ID of Recipient" respectively.

Record Code 069 - Internal UPC/Cover/Title Data for use ONLY with STRT

Positions From/To	Field Name	Format	Description
1	*Variable*	*X(1)*	*Value "V"*
2/6	*Record Length*	*9(5)*	*Value "00141" The length of the transaction data in bytes*
7/10	*From ID*	*9(4)*	*Sender's Id*
11/14	*To ID*	*9(4)*	*Value "0009".*
15/17	*Record Code*	*9(3)*	*Value "069"*
18/31	Bar Code	X(14)	Right Justified Bar Code of the type of UPC or EAN (Not suppressed)(where "S" in last position is the Self Check digit) • UPC format 00NNNNNNNNNNS • EAN format 0NNNNNNNNNNNS
32	Country	X(1)	Country: Value "U" for USA Value "C" for Canada (Note if the UPC and Cover price is the same in the US and Canada, the National Distributor needs to still send two records.)
33/34	Year	X(2)	YY – The year associated with the issue
35/36	Issue/Add on code	X(2)	AA - The 2 digit code placed to the right of the UPC code which is printed on the cover of the periodical
37/41	Cover Price	9(3)v99	The cover price associated with this UPC for the US or Canada (based on the above fields).
42/46	BIPAD Number	9(5)	The industry number by which this title is identified.
47/51	Parent BIPAD	9(5)	The BIPAD Number of the parent title, if any, otherwise it should contain a zero value or the same BIPAD number as above.
52/56	Parent Authorization	9(5)	The BIPAD Number of the title under which an authorization group is handled. For example if a group of special interest titles are authorized simultaneously to distribution, then the master product/BIPAD number would be placed here. A zero value or the BIPAD Number from above should be used if Parent Authorization doesn't apply.
57/58	Issues per Year	9(2)	The number of published issues per year for this title.
59/83	Title	X(25)	The title associated with this UPC code and BIPAD. This system will only allow a single title per BIPAD. It is the national distributor's responsibility to insure that there is only one title supplied per BIPAD. If a special interest publication has four names, one for each quarter, EMS will only be able to carry one in its title file. If more than one is submitted, EMS cannot guarantee which one will be used.
84/93	Issue Description	X(10)	The date printed on the issue
94/101	On-Sale Date	9(8)	The date in the form of YYYYMMDD that the issue is to be placed on Sale

Record Code 069 (Continued) - Internal UPC/Cover/Title Data for use ONLY with STRT

Positions From/To	Field Name	Format	Description
102/109	Off-Sale Date	9(8)	The date in the form of YYYYMMDD that the issue is to be taken off sale
110/119	Editorial Category*	9(10)	A yet to be defined industry standard magazine editorial category (see table below).
120/127	Publisher Code	X(8)	An alphanumeric code identifying the supplier's internal code for the publisher of the UPC. This will be used to allow the publisher to receive its bar codes via EMS or the web site
128/147	Publisher Desc	X(20)	Actual name of publisher of the product. In most cases it would be the name associated with the Publisher Code, however, it could be different. For example, if Publisher A and Publisher B sell product to Middleman X who in turn sells both products to Middleman Y, it is reasonable that the Publisher Code would be the same for both titles, however, the Publisher Desc would be different for each title. This field would allow a retailer to coordinate all products belonging to a single publisher even if the publisher uses more than one national distributor

* For the time being, map the current 5-digit editorial category into the 1st five positions of the 069/editorial category

Record Code 260 - Barcode/Cover/Title/Issue Data Header
(STRT WILL READ USING THE 069 RECORD FORMAT)

Positions From/To	Field Name	Format	Description
1	*Variable*	*X(1)*	*Value "V"*
2/6	*Record Length*	*9(5)*	*Value "00194" The length of the transaction data in bytes*
7/10	*From ID*	*9(4)*	*Sender's Id*
11/14	*To ID*	*9(4)*	*Value "0009".*
15/17	*Record Code*	*9(3)*	*Value "260"*
18/21	Sender Control Id	X(4)	A unique Alphanumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
22/27	Total Lines	9(6)	The total number of 061 records
28/33	Process Date	9(6)	The date (YYMMDD) the data was processed by the national distributor/publisher (Left Zero fill)
34/37	Process Time	9(4)	The time associated with the process date (HH:MM) that the data was processed by the national distributor/publisher. Date and time are required to allow EMS to determine the latest file in the event a national distributor/publisher transmits more than one file between EMS daily update cycles. (Left Zero fill)
38/40	Sync Identifier	9(3)	Used by STRT to sync 069 records with 061 & 261
41/145	Filler	X(105)	Unused
146	Return to Sender Code	X(1)	Values: 'B' - Out of Balance 'D' - Illegal Date 'S' - Out of Sync 'I' Unrecognized IPDA.org ID
147-200	Filler	X(54)	Unused

Record Code 261 - Barcode/Cover/Title/Issue Data
(STRT WILL CREAD USING THE 069 RECORD FORMAT)

Positions From/To	Field Name	Format	Description
1	*Variable*	*X(1)*	*Value "V"*
2/6	*Record Length*	*9(5)*	*Value "00194" The length of the transaction data in bytes*
7/10	*From ID*	*9(4)*	*Sender's Id*
11/14	*To ID*	*9(4)*	*Value "0009".*
15/17	*Record Code*	*9(3)*	*Value "261"*
18	Record Expander	X(1)	Value "A"
19/32	Bar Code	X(14)	Right Justified Bar Code of the type of UPC or EAN (suppressed codes will note be accepted, they will be exploded into full codes). • UPC format 00NNNNNNNNNNS • EAN format 0NNNNNNNNNNNS
33	Country	X(1)	Country: Value "U" for USA Value "C" for Canada (Note even if the UPC and Cover price is the same in the US and Canada, the National Distributor needs to still send two records.)
34/35	Year	X(2)	YY – The year associated with the issue
36/37	Issue/Add on code	X(2)	AA - The 2 digit code placed to the right of the UPC code which is printed on the cover of the periodical
38/42	Cover Price	9(3)v99	The cover price associated with this UPC for the US or Canada (based on the above fields).
43/47	BIPAD Number	9(5)	The industry number by which this title is identified. (Left Zero Fill)
48/52	Parent BIPAD	9(5)	The BIPAD Number of the parent title, if any, otherwise it should contain a zero value or the same BIPAD number as above. (Left Zero Fill)
53/57	Filler	X(5)	Unsued
58/59	Issues per Year	9(2)	Number of published issues per year for this title. (Left Zero fill)
60/84	Title	X(25)	The title associated with this UPC code and BIPAD. This system will only allow a single title per BIPAD. It is the national distributor's responsibility to insure that there is only one title supplied per BIPAD. If a special interest publication has four names, one for each quarter, EMS will only be able to carry one in its title file. If more than one is submitted, EMS cannot guarantee which one will be used.
85/94	Issue Description	X(10)	The date printed on the issue
95/102	On-Sale Date	9(8)	The date in the form of YYYYMMDD that the issue is to be placed on Sale
103/110	Off-Sale Date	9(8)	The date in the form of YYYYMMDD that the issue is to be taken off sale
111/120	Editorial Category	9(10)	Industry standard magazine editorial category (see table below).

Record Code 261 - Barcode/Cover/Title/Issue Data (Continued)

Positions From/To	Field Name	Format	Description
121/128	Publisher Code	X(8)	An alphanumeric code identifying the supplier's internal code for the publisher of the UPC. This will be used to allow the publisher to receive its bar codes via EMS or the web site
129/148	Publisher Desc	X(20)	Actual name of publisher of the product. In most cases it would be the name associated with the Publisher Code, however, it could be different. For example, if Publisher A and Publisher B sell product to Middleman X who in turn sells both products to Middleman Y, it is reasonable that the Publisher Code would be the same for both titles, however, the Publisher Desc would be different for each title. This field would allow a retailer to coordinate all products belonging to a single publisher even if the publisher uses more than one national distributor
149/200	Filler	X(52)	Unused

Record Code 263 - Barcode/Cover/Title/Issue Reject Header

Positions From/To	Field Name	Format	Description
1	*Variable*	*X(1)*	*Value "V"*
2/6	*Record Length*	*9(5)*	*Value "00194" The length of the transaction data in bytes*
7/10	*From ID*	*9(4)*	*Sender's Id*
11/14	*To ID*	*9(4)*	*Value "0009".*
15/17	*Record Code*	*9(3)*	*Value "263"*
18/21	Sender Control Id	X(4)	A unique Alphanumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
22/27	Total Lines	9(6)	The total number of 061 records
28/33	Process Date	9(6)	The date (YYMMDD) the data was processed by the national distributor/publisher (Left Zero fill)
34/37	Process Time	9(4)	The time associated with the process date (HH:MM) that the data was processed by the national distributor/publisher. Date and time are required to allow EMS to determine the latest file in the event a national distributor/publisher transmits more than one file between EMS daily update cycles. (Left Zero fill)
38/40	Sync Identifier	9(3)	Used by STRT to sync 069 records with 061 & 261
41/200	Filler	X(160)	Unused

Record Code 264 - Barcode/Cover/Title/Issue Rejects (Record "A")

Positions From/To	Field Name	Format	Description
1	*Variable*	*X(1)*	*Value "V"*
2/6	*Record Length*	*9(5)*	*Value "00194" The length of the transaction data in bytes*
7/10	*From ID*	*9(4)*	*Sender's Id*
11/14	*To ID*	*9(4)*	*Value "0009".*
15/17	*Record Code*	*9(3)*	*Value "264"*
18	Record Expander	X(1)	Value "A"
19/32	Bar Code	X(14)	Right Justified Bar Code of the type of UPC or EAN (suppressed codes will note be accepted, they will be exploded into full codes). • UPC format 00NNNNNNNNNNS • EAN format 0NNNNNNNNNNNS
33	Country	X(1)	Country: Value "U" for USA Value "C" for Canada (Note even if the UPC and Cover price is the same in the US and Canada, the National Distributor needs to still send two records.)
34/35	Year	X(2)	YY – The year associated with the issue
36/37	Issue/Add on code	X(2)	AA - The 2 digit code placed to the right of the UPC code which is printed on the cover of the periodical
38/42	Cover Price	9(3)v99	The cover price associated with this UPC for the US or Canada (based on the above fields).
43/47	BIPAD Number	9(5)	The industry number by which this title is identified. (Left Zero Fill)
48/52	Parent BIPAD	9(5)	The BIPAD Number of the parent title, if any, otherwise it should contain a zero value or the same BIPAD number as above. (Left Zero Fill)
53/57	Filler	X(5)	Unused
58/59	Issues per Year	9(2)	Number of published issues per year for this title. (Left Zero fill)
60/84	Title	X(25)	The title associated with this UPC code and BIPAD. This system will only allow a single title per BIPAD. It is the national distributor's responsibility to insure that there is only one title supplied per BIPAD. If a special interest publication has four names, one for each quarter, EMS will only be able to carry one in its title file. If more than one is submitted, EMS cannot guarantee which one will be used.
85/94	Issue Description	X(10)	The date printed on the issue
95/102	On-Sale Date	9(8)	The date in the form of YYYYMMDD that the issue is to be placed on Sale
103/110	Off-Sale Date	9(8)	The date in the form of YYYYMMDD that the issue is to be taken off sale
111/120	Editorial Category	9(10)	Industry standard magazine editorial category (see table below).

Record Code 264 - Barcode/Cover/Title/Issue Rejects (Record "A") (Continued)

Positions From/To	Field Name	Format	Description
121/128	Publisher Code	X(8)	An alphanumeric code identifying the supplier's internal code for the publisher of the UPC. This will be used to allow the publisher to receive its bar codes via EMS or the web site
129/148	Publisher Desc	X(20)	Actual name of publisher of the product. In most cases it would be the name associated with the Publisher Code, however, it could be different. For example, if Publisher A and Publisher B sell product to Middleman X who in turn sells both products to Middleman Y, it is reasonable that the Publisher Code would be the same for both titles, however, the Publisher Desc would be different for each title. This field would allow a retailer to coordinate all products belonging to a single publisher even if the publisher uses more than one national distributor
149/200	Filler	X(52)	Unused

Record Code 264 - Barcode/Cover/Title/Issue Rejects (Record "B")

Positions From/To	Field Name	Format	Description
1	*Variable*	*X(1)*	*Value "V"*
2/6	*Record Length*	*9(5)*	*Value "00194" The length of the transaction data in bytes*
7/10	*From ID*	*9(4)*	*Sender's Id*
11/14	*To ID*	*9(4)*	*Value "0009".*
15/17	*Record Code*	*9(3)*	*Value "264"*
18	Record Expander	X(1)	Value "B"
19/32	Bar Code	X(14)	Right Justified Bar Code of the type of UPC or EAN (suppressed codes will note be accepted, they will be exploded into full codes). • UPC format 00NNNNNNNNNNS • EAN format 0NNNNNNNNNNNS
33	Country	X(1)	Country: • Value "U" for USA • Value "C" for Canada (Note even if the UPC and Cover price is the same in the US and Canada, the National Distributor needs to still send two records.)
34/35	Year	X(2)	YY – The year associated with the issue
36/37	Issue/Add on code	X(2)	AA - The 2 digit code placed to the right of the UPC code which is printed on the cover of the periodical
38/41	Conflicting Owner	9(4)	The Mailbox number of the national distributor/supplier maintaining current ownership of this Barcode/Issue.
42	Price Check	X(1)	Validates the fact that PICS contains the same price for the country (Only used in conjunction with Conflicting Owner). • blank or 'Y' - Same price • 'N' – Different Price
43	Barcode format	X(1)	• blank – Barcode Format OK • 'N' – Barcode Format not either:
44	Self Check Digit	X(1)	• blank – Okay • N' – Invalid Self Check Digit
45	Cover Price	X(1)	• blank – Okay • N' – Invalid Cover Price
46	Title	X(1)	• blank – Okay • 'N' – Invalid Title
47	BIPAD	X(1)	• blank – Okay • 'N' – Invalid BIPAD
48	Duplicate Record	X(1)	• Blank – Okay • 'N' - This record was rejected because the same barcode was already sent within this transmission, whether or not it was sent as a full or suppressed UPC code.

Record Code 264 - Barcode/Cover/Title/Issue Rejects (Record "B") (Continued)

Positions From/To	Field Name	Format	Description
49	Active BIPAD/Title	X(1)	Used in conjunction with Conflicting Owner: • blank – Title is Active • 'N' – Title is Inactive
50	Barcode Ownership	X(1)	• Blank – Okay • 'N' – Cannot place an issue/barcode under a barcode which isn't under your control
51	Company Prefix	X(1)	• Blank – Okay • 'N' – Unknown Company Prefix
52	No Matching Barcode	X(1)	• Blank – Okay • 'N' – No Matching Barcode in Barcodes
53	BIPAD doesn't match BIPAD in Barcodes	X(1)	• Blank – Okay • 'N' – BIPAD doesn't match BIPAD in Barcodes
54/200	Filler	X(137)	Unused

Record Code 265 - Barcode/Cover/Title/Issue Data Header

Positions From/To	Field Name	Format	Description
1	*Variable*	*X(1)*	*Value "V"*
2/6	*Record Length*	*9(5)*	*Value "00194" The length of the transaction data in bytes*
7/10	*From ID*	*9(4)*	*Sender's Id*
11/14	*To ID*	*9(4)*	*Value "0009".*
15/17	*Record Code*	*9(3)*	*Value "265"*
18/21	Sender Control Id	X(4)	A unique Alphanumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
22/27	Total Lines	9(6)	The total number of 061 records
28/33	Process Date	9(6)	The date (YYMMDD) the data was processed by the national distributor/publisher (Left Zero fill)
34/37	Process Time	9(4)	The time associated with the process date (HH:MM) that the data was processed by the national distributor/publisher. Date and time are required to allow EMS to determine the latest file in the event a national distributor/publisher transmits more than one file between EMS daily update cycles. (Left Zero fill)
38/40	Sync Identifier	9(3)	Used by STRT to sync 069 records with 061 & 261
41/200	Filler	X(160)	Unused

Record Code 266 - Barcode/Cover/Title/Issue Data

Positions From/To	Field Name	Format	Description
1	*Variable*	*X(1)*	*Value "V"*
2/6	*Record Length*	*9(5)*	*Value "00194" The length of the transaction data in bytes*
7/10	*From ID*	*9(4)*	*Sender's Id*
11/14	*To ID*	*9(4)*	*Value "0009".*
15/17	*Record Code*	*9(3)*	*Value "266"*
18	Record Expander	X(1)	Value "A"
19/32	Bar Code	X(14)	Right Justified Bar Code of the type of UPC or EAN (suppressed codes will note be accepted, they will be exploded into full codes). • UPC format 00NNNNNNNNNNS • EAN format 0NNNNNNNNNNNS
33	Country	X(1)	Country: Value "U" for USA Value "C" for Canada (Note even if the UPC and Cover price is the same in the US and Canada, the National Distributor needs to still send two records.)
34/35	Year	X(2)	YY – The year associated with the issue
36/37	Issue/Add on code	X(2)	AA - The 2 digit code placed to the right of the UPC code which is printed on the cover of the periodical
38/42	Cover Price	9(3)v99	The cover price associated with this UPC for the US or Canada (based on the above fields).
43/47	BIPAD Number	9(5)	The industry number by which this title is identified. (Left Zero Fill)
48/52	Parent BIPAD	9(5)	The BIPAD Number of the parent title, if any, otherwise it should contain a zero value or the same BIPAD number as above. (Left Zero Fill)
53/57	Filler	X(5)	Unused
58/59	Issues per Year	9(2)	Number of published issues per year for this title. (Left Zero fill)
60/84	Title	X(25)	The title associated with this UPC code and BIPAD. This system will only allow a single title per BIPAD. It is the national distributor's responsibility to insure that there is only one title supplied per BIPAD. If a special interest publication has four names, one for each quarter, EMS will only be able to carry one in its title file. If more than one is submitted, EMS cannot guarantee which one will be used.
85/94	Issue Description	X(10)	The date printed on the issue
95/102	On-Sale Date	9(8)	The date in the form of YYYYMMDD that the issue is to be placed on Sale
103/110	Off-Sale Date	9(8)	The date in the form of YYYYMMDD that the issue is to be taken off sale
111/120	Editorial Category	9(10)	Industry standard magazine editorial category (see table below).
121/128	Filler	X(8)	Unused

Record Code 266 - Barcode/Cover/Title/Issue Data (Continued)

Positions From/To	Field Name	Format	Description
129/148	Publisher Desc	X(20)	Actual name of publisher of the product. In most cases it would be the name associated with the Publisher Code, however, it could be different. For example, if Publisher A and Publisher B sell product to Middleman X who in turn sells both products to Middleman Y, it is reasonable that the Publisher Code would be the same for both titles, however, the Publisher Desc would be different for each title. This field would allow a retailer to coordinate all products belonging to a single publisher even if the publisher uses more than one national distributor
149/200	Filler	X(52)	Unused

Editorial Categories

Legend

Approach:
1xxxx is Personal Interest
2xxxx is General Interest
3xxxx is Special Interest
9xxxx is Miscellaneous/Unknown

A category code is 5 digits.
"r" is 0 for non-regional and 1 for regional
"e" is 0 for non-ethnic and 1 for ethnic

For Example:
12200 would be for a national bridal magazine
12210 would be for a regional bridal magazine
12201 would be for an ethnic bridal magazine
12211 would be for a regional ethnic bridal magazine

1 - Personal Interest		
Group	Code	Description
11 - MENS	110re	MENS GENERAL
	111re	MENS FASHION
	119re	MENS OTHER
12 - WOMENS	120re	WOMENS GENERAL
	121re	BEAUTY
	122re	BRIDAL
	123re	FASHION
	124re	ROMANCE
	125re	WOMENS SERVICE
	126re	MODERN WOMAN
	129re	WOMENS OTHER
13 - TEEN/CHILDREN	131re	KIDS
	132re	COMICS
	133re	TEEN
	139re	TEEN/CHILDREN OTHER
14 - SOPHISTICATES	141re	MENS SOPHISTICATES
	142re	WOMENS SOPHISTICATES
	143re	TATTOOS
	144re	ALTERNATIVE LIFESTYLE
	149re	PERSONAL LIFE/OTHER

2 - General Interest		
Group	Code	Description
21 - FOOD	210re	FOOD GENERAL
	211re	COOKING/RECIPES
	212re	DIET/LIGHT FOODS
	213re	GOURMET
	214re	WINE AND LIQUOR
	215re	DINING
	219re	FOOD OTHER
22 - FAMILY/HOME	220re	FAMILY HOME GENERAL
	221re	ARCHITECTURE HOUSEPLANS
	222re	DECORATING
	223re	FAMILY LIFE
	224re	GARDEN LANDSCAPE
	225re	HOME
	226re	PARENTING
	227re	HOME MECHANICS
	229re	FAMILY OTHER
23 - SPORTS	230re	SPORTS GENERAL
	231re	BASEBALL
	232re	BASKETBALL
	233re	FOOTBALL
	234re	GOLF/TENNIS
	235re	BOXING/WRESTLING
	236re	WATER SPORTS
	237re	SNOW SPORTS
	238re	BICYCLING/RUNNING
	239re	SPORTS OTHER
24 - NEWS	240re	NEWS GENERAL
	241re	NEWS NATIONAL
	242re	NEWS FOREIGN
	243re	NEWS LOCAL/SPEC
	244re	GOVERNMENT/MILITARY
	248re	TABLOIDS
	249re	NEWS OTHER

2 - General Interest		
Group	Code	Description
25 - ENTERTAINMENT	250re	ENTERTAINMENT GENERAL
	251re	ELECTRONICS
	252re	MUSIC/INSTRUMENTS
	253re	SOFTWARE/GAMES
	254re	TV/VIDEO/MOVIE/RADIO
	255re	POP CULTURE
	256re	MUSIC/REVIEWS
	257re	HI-FI
	259re	ENTERTAINMENT OTHER
26 - LIFESTYLE	260re	LIFESTYLE GENERAL
	261re	PERSONALITIES
	264re	MATURITY/RETIREMENT
	269re	LIFESTYLE OTHER
27 - HEALTH/FITNESS	270re	HEALTH FITNESS GENERAL
	271re	FITNESS
	272re	HEALTH
	273re	MUSCLE/WEIGHT
	278re	MENTAL/SELF HELP
	279re	HEALTH FITNESS OTHER
28 - SOCIAL/LITERARY	280re	SOC LIT GENERAL
	281re	HISTORY
	282re	LITERATURE FICTION
	283re	MATURITY
	284re	PROFESSIONAL/ORGANIZATION
	285re	RELIGION
	286re	SOCIAL EDITORIAL POLITICS
	287re	MYSTERY/CRIME
	288re	HUMOR
	289re	SOC LIT OTHER
29 - BUSINESS/FINANCE	290re	BUSINESS GENERAL
	291re	BUSINESS NEWS
	292re	TAX
	293re	ENTREPRENEURSHIP
	294re	PERSONAL FINANCE
	295re	PROFESSIONAL/ORGANIZATION
	296re	AGRIBUSINESS
	297re	E BUSINESS
	298re	INVESTING
	299re	BUSINESS OTHER

3 - Special Interest		
Group	Code	Description
32 - ANIMALS	311re	ANIMALS
	312re	PETS
	313re	HORSES/BREEDING
	319re	ANIMALS OTHER
32 - ARTS	320re	ARTS GENERAL
	321re	ANTIQUES
	322re	ART
	323re	MUSIC ARTS
	324re	PHOTOGRAPHY
	325re	THEATER
	326re	PERFORMING ARTS OTHER
	327re	MUSEUMS
	329re	ARTS OTHER
33 - COMPUTERS	330re	COMPUTERS GENERAL
	331re	BUYING GUIDES
	332re	HOME COMPUTERS
	333re	INTERNET
	334re	SOFTWARE
	335re	GAMES
	339re	COMPUTERS OTHER
34 - AUTOMOTIVE	340re	AUTO GENERAL
	341re	AUTO BUYING GUIDES
	342re	AUTO ELECTRONICS
	343re	TRUCKS/SUV/RV/atv/VANS
	344re	PERFORMANCE/RACING
	345re	AUTO ENTHUSIAST/COLLECTOR
	346re	MOTORCYCLES
	347re	AUTO BRANDED
	349re	AUTO OTHER
35 - OUTDOORS	350re	OUTDOOR GENERAL
	351re	ENVIRONMENTAL
	352re	HUNTING FISHING
	353re	GUNS/KNIVES
	354re	HIKING/CAMPING/CLIMBING
	356re	SURVIVAL
	359re	OUTDOOR OTHER

3 - Special Interest		
Group	Code	Description
36 - RECREATION	360re	RECREATION GENERAL
	361re	AIRPLANES
	363re	BOATING
	364re	CITY & STATE GUIDE
	365re	GAMBLING/GAMING
	366re	CRAFTS
	367re	HOBBIES
	368re	TRAVEL
	369re	RECREATION OTHER
37 - SCIENCE	370re	SCIENCE GENERAL
	371re	MEDICINE
	372re	SCIENCE FICTION
	373re	EARTH SCIENCE
	379re	SCIENCE OTHER
38 - GAMES/PUZZLES	380re	GAMES/PUZZLES GENERAL
	381re	GAMES
	382re	PUZZLES
	383re	CD ROMS
	384re	OTHER MAGNETIC MEDIUM
	389re	GAMES/PUZZLES OTHER
39 - SPECIALTY	391re	FACT BOOK/REFERENCE
	392re	CATALOG
	393re	ALMANACS
	394re	CALENDARS
	395re	HOROSCOPES
	396re	MINIMAGS
	397re	TRADING CARDS
	398re	MAPS
	399re	SPECIALTY OTHER

9 - Miscellaneous and Unknown		
Group	Code	Description
99 - OTHER	998re	MISCELLANEOUS MAGAZINE
	999re	UNKNOWN

3.17 Industry Survey

3.17.1 Record Types

National distributors would use this format to transfer monthly historical sales numbers to accounting firm to produce an industry health report

Code	Description
740	Industry Level Header
741	Industry Survey Company Level Detail

- Each 741 Company Level Detail record would contain the summarized data for that national distributor for a single month.
    - Units, wholesaler billing dollars and retail dollars for both net monthly in and out draw and returns would be individually summarized across the US, Canadian and foreign markets. Eighteen values.
    - All dollars would be reported in US dollars
    - The US to Canadian dollar conversion used by the national distributor would be reported as well
- A 981 Carbon Copy Record needs to be sent to Mailbox 0008

3.17.2 Field Descriptions

Record Code 740 - Industry Survey Header

Positions From/To	Field Name	Format	Description
1	*Variable*	*X(1)*	*Value "V"*
2/6	*Record Length*	*9(5)*	*Value "00344" The length of the transaction data in bytes*
7/10	*From ID*	*9(4)*	*Sender's Id (Left Zero Fill)*
11/14	*To ID*	*9(4)*	*Value "8500" (Left Zero Fill)*
15/17	*Record Code*	*9(3)*	*Value "740" (Left Zero Fill)*
18/21	Sender Control Id	X(4)	A unique Alphanumeric code which STRT places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
22/26	Total Lines/Records	9(5)	The total number of 741 records (Left Zero Fill)
27/46	Contact Name	X(20)	Person to be contacted that could clarify the numbers or in case of error
47/66	Contact Phone	X(20)	Phone number of person to be contacted that could clarify the numbers or in case of error
67/106	Contact Email	X(40)	Email of person to be contacted that could clarify the numbers or in case of error
107/118	Run Date - Time	X(12)	Format YYYYMMDDHHMM
119/350	Filler	X(232)	Unused

Record Code 741 - Industry Survey Company Level Detail

Positions From/To	Field Name	Format	Description
1	*Variable*	*X(1)*	*Value "V"*
2/6	*Record Length*	*9(5)*	*Value "00344" The length of the transaction data in bytes*
7/10	*From ID*	*9(4)*	*Sender's Id (Left Zero Fill)*
11/14	*To ID*	*9(4)*	*Value "8500" (Left Zero Fill)*
15/17	*Record Code*	*9(3)*	*Value "741" (Left Zero Fill)*
18/19	Month	9(2)	The calendar month for which the data in this record applies (Left Zero Fill)
20/23	Year	9(4)	The calendar year for which the data in this record applies in form of YYYY
24/33	US Draw Units	9(10)	The summarized US draw and draw type unit transactions for the month (Left Zero Fill)
34/43	US Return Units	9(10)	The summarized US return and return type unit transactions for the month (Left Zero Fill)
44/53	Canadian Draw Units	9(10)	The summarized Canadian draw and draw type unit transactions for the month (Left Zero Fill)
54/63	Canadian Return Units	9(10)	The summarized Canadian return and return type unit transactions for the month (Left Zero Fill)
64/73	Foreign Draw Units	9(10)	The summarized Foreign draw and draw type unit transactions for the month (Left Zero Fill)
74/83	Foreign Return Units	9(10)	The summarized Foreign return and return type unit transactions for the month (Left Zero Fill)
84/94	US Draw Wholesale Dollars	9(11)	The summarized US draw and draw type wholesale dollar transactions for the month (Left Zero Fill)
95/105	US Return Wholesale Dollars	9(11)	The summarized US return and return type wholesale transactions for the month (Left Zero Fill)
106/116	Canadian Draw Wholesale Dollars	9(11)	The summarized Canadian draw and draw type wholesale dollar transactions for the month (Left Zero Fill)
117/127	Canadian Return Wholesale Dollars	9(11)	The summarized Canadian return and return type wholesale transactions for the month (Left Zero Fill)
128/138	Foreign Draw Wholesale Dollars	9(11)	The summarized Foreign draw and draw type wholesale dollar transactions for the month (Left Zero Fill)
139/149	Foreign Return Wholesale Dollars	9(11)	The summarized Foreign return and return type wholesale transactions for the month (Left Zero Fill)
150/160	US Draw Retail Dollars	9(11)	The summarized US draw and draw type retail dollar transactions for the month (Left Zero Fill)
161/171	US Return Retail Dollars	9(11)	The summarized US return and return type retail transactions for the month (Left Zero Fill)
172/182	Canadian Draw Retail Dollars	9(11)	The summarized Canadian draw and draw type retail dollar transactions for the month (Left Zero Fill)
183/193	Canadian Return Retail Dollars	9(11)	The summarized Canadian return and return type retail transactions for the month (Left Zero Fill)
194/204	Foreign Draw Retail Dollars	9(11)	The summarized Foreign draw and draw type retail dollar transactions for the month (Left Zero Fill)
205/215	Foreign Return Retail Dollars	9(11)	The summarized Foreign return and return type retail transactions for the month (Left Zero Fill)
216/222	US to Canadian Conversion Factor	99v99999	Average factor ND used during the month to convert US to Canadian funds (Left Zero Fill)
223/350	Filler	X(128)	Unused

Record Code 981 – Simultaneous Carbon Copy Request for a **variable** Byte Record

Positions From/To	Field Name	Format	Description
1	*Variable*	*X(1)*	*Value "V"*
2/6	*Record Length*	*9(5)*	*Value "00344" The length of the transaction data in bytes*
7/10	*From ID*	*9(4)*	*Sender's Id (Left Zero Fill)*
11/14	*To ID*	*9(4)*	*Value "8500" (Left Zero Fill)*
15/17	*Record Code*	*9(3)*	*Value "981" (Left Zero Fill)*
18/21	CC EMS ID	9(4)	Value "0008" (Left Zero Fill)
22/350	Filler	X(329)	Unused

3.18 Industry Survey

3.18.1 Record Types

National distributors would use this format to transfer monthly historical sales numbers to accounting firm to produce an industry health report

Code	Description
750	ND Issue Level Sales Collection Header
751	ND Issue Level Sales Collection Detail

3.18.2 Field Descriptions

3.19 Reserved

3.20 Reserved

3.21 Reserved

3.22 Reserved

3.23 Reserved

3.24 Magazine Draw/Return Adjustments

3.24.1 Record Types

Magazine adjustments are transmitted from the Wholesaler Trading Partner to the National Distributor.

Wholesalers may transmit their magazine adjustments to the National Distributor using the following record types:

Code	Description
190	Draw/Return Adjustments Header
191	Draw/Return Adjustments Detail
192	Draw/Return Adjustment Comment

- Each adjustment request needs to contain a unique wholesaler reference number.
- Wholesaler may place many adjustments under a single reference number.
- Adjustments may only be used for conditions that affect the draw and/or return.
- Adjustments are intended for those initiated by the wholesaler.
- National distributor may either process these transactions automatically and/or manually and at its option may require additional support material.

3.24.2 Field Descriptions

Record Code 190 – Draw/Return Adjustments Header

Positions From/To	Field Name	Format	Description
12/15	Total Lines	9(4)	The total number of 191 and 192 records for this adjustment.
16/21	Date of Adjustment	9(6)	The date of the affidavit (Format YYMMDD).
22/31	Reference Number	X(10)	The Wholesaler's reference number which uniquely identifies this adjustment.
32/39	Total Quantity	9(8)	The overall sum, without regard to sign, of the quantities to be adjusted on all the subsequent record type 191 details.
40/74	Filler	X(35)	Unused
75/78	Sender Control Id	X(4)	A unique AlphaNumeric code which the sender places on this outgoing family of records which would allow it upon return to verify receipt by EMS and/or Recipient
79/80	Filler	X(2)	Unused.

Record Code 191 – Draw/Return Adjustments Detail

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	The BIPAD Code identifying the magazine to be adjusted.
17/20	UPC Issue	9(4)	The code identifying the issue to be adjusted. (Format is YYAA where YY is the last digits of the year and AA are the magazine's add-on code.)
21/27	Quantity	9(7)	The number of copies of this issue for which an adjustment is being requested.
28/29	Adjustment Code	X(2)	The code identifying the type of adjustment (see table below). The sign of the adjustment will be determined by this code, whether it is a credit or a charge and whether it will add to or subtract from draw or returns.
30/34	Cover Price	9(3)v99	Optional – will only be used for identification and confirmation purposes
35/48	Barcode	X(14)	Optional – will only be used for identification and confirmation purposes

Draw Adjustments		**Return Adjustments**	
SH	Shortage (if accepted will reduce draw quantity and will result in a credit)	PO	Return Adjustment by reason of POS data received after notification to National; Distributor. (if accepted will reduce return quantity and will result in a charge)
OV	Overage (if accepted will increase draw quantity and will result in a charge)	PR	Return Adjustment Cancel (if accepted will increase return quantity and will result in a credit)
SR	Shortage Cancel (if accepted will increase draw quantity and will result in a charge)	ST	Stock Recovery – if and only if stock is reported as a return and held back from destruction and then used to fulfill orders. . (if accepted will reduce return quantity and will result in a charge)
OR	Overage Cancel (if accepted will reduce draw quantity and will result in a credit)		

Record Code 192 – Draw/Return Adjustments Comment

Positions From/To	Field Name	Format	Description
12/16	BIPAD	9(5)	The BIPAD Code identifying the magazine to be adjusted.
17/20	UPC Issue	9(4)	The code identifying the issue to be adjusted. (Format is YYAA where YY is the last digits of the year and AA are the magazine's add-on code.)
21/78	Comment	X(58)	Free-form message concerning the specified magazine and issue.
79/80	Sequence Number	9(2)	Used for multiple line notes to indicate the order in which they should be printed.

192 Comment record associated with a 191 record must be placed immediately after that 191 record.

3.25 Administrative Function, A collection of unrelated

3.25.1 Record Types

The administrative collection are independent and unrelated record formats that can be used within the confines ascribed to each.

Code	Description
981	Request for a simultaneous Carbon Copy of a transaction set

3.25.2 Field Descriptions

Record Code 981 – Simultaneous Carbon Copy Request for a **standard 80** Byte Record

Positions From/To	Field Name	Format	Description
12/15	CC EMS ID	9(4)	The EMS Mailbox Number of the other organization that is to receive a duplicate copy of this request.
16/NN	Filler	X(NN-15)	The appropriate amount of filler required to make this record have the same record length as the family header for a standard 80 record. For example if the family header is an 050 then NN would be 80 and the filler would be 65.

Record Code 981 – Simultaneous Carbon Copy Request for a **variable** Byte Record

Positions From/To	Field Name	Format	Description
1	*Variable*	*X(1)*	*Value "V"*
2/6	*Record Length*	*9(5)*	*Value "(NN-6)" The length of the transaction data in bytes. NN is defined in the filler section several lines below. In the below example, this value would be 110.*
7/10	*From ID*	*9(4)*	*Sender's Id*
11/14	*To ID*	*9(4)*	*Recipient's ID.*
15/17	*Record Code*	*9(3)*	*Value "981"*
18/21	CC EMS ID	9(4)	The EMS Mailbox Number of the other organization that is to receive a duplicate copy of this request.
22/NN	Filler	X(NN-21)	The appropriate amount of filler required to make this record have the same record length as the family header for a variable record. For example if the family header is an 001 which has a full record length of 116 then NN would be 116 and the filler would be 95.

A. The 981 record needs to be placed after all the detail transactions for that specific transaction set
   1 For example for an 050 (all records in this transaction set are 80 bytes)
   - **a 0030 1234 050 xxxxxxxxx** **Header from 0030 to M/B 1234**
   - b 0030 1234 051 xxxxxxxxx Detail from 0030 to M/B 1234
   - c 0030 1234 055 xxxxxxxxx Comment from 0030 to M/B 1234

d	0030 1234 055 xxxxxxxxx	Comment from 0030 to M/B 1234
e	0030 1234 051 xxxxxxxxx	Detail from 0030 to M/B 1234
f	0030 1234 051 xxxxxxxxx	Detail from 0030 to M/B 1234
g	0030 1234 981 4321-------	Copy of above to go to M/B 4321
h	0030 1234 981 3456-------	Copy of above to go to M/B 3456
i	**0040 8787 070 xxxxxxxxx**	**Header from 0040 to M/B 8787**
j	0040 8787 071 xxxxxxxxx	Detail from 0040 to M/B 8787
k	0040 8787 071 xxxxxxxxx	Detail from 0040 to M/B 8787
l	0040 8787 071 xxxxxxxxx	Detail from 0040 to M/B 8787
m	0040 8787 981 3456-------	Copy of above to go to M/B 3456

B. The first 8 positions must be the same for the 981 as it is for the remainder of the transaction set. Any 981 record that doesn't meet hits criteria will be ignored.

C. The transaction set placed in the original and carbon copy mailboxes would not include the 981 record(s).

D. Each carbon copy will become a separate transaction set. However, it will not follow the rule of having the Receiver ID match the mailbox of the mailbox number of the recipient. In the above example, mailbox 3456 would have the allotment transaction set destined for 1234 from 0030 as well as the invoice transaction set destined for 8787 from 0040.

E. A 981 CC record may not be used to place a transaction set into the mailbox of the designated receiver. For example is 0030 is sending a transaction set to 1234, then 1234 cannot also be placed on a 981 record format for that transaction set.

F. There may be any number or no 981 CC record formats associated with a transaction set.

G. If more that one 981 CC record is for the same EMS ID within the same transaction set, only the first one will be executed. The second and subsequent ones will be ignored.

H. 981 records may be used with all transaction sets

I. The 981 record(s) **must** not be counted in the family header "Total Lines" and/or any other header control total. There will be control counts for the 981 record(s).

4 Data Transmission Procedures

This chapter presents a description of the basic procedures and record layouts used to transmit to and from the DPS Electronic Post Office facility. Questions about telecommunications protocols and related technical issues should be directed to the EMS Customer Service at {1-727-532-9481}.

IPDA supports a software package STRT (see Document D207) that manages the transmissions and record manipulations required by EMS. EMS employs several proprietary data manipulation methods including: bit strip compression and pseudo variable record lengths as well as combinations of each. STRT supports these techniques and is expected to support other yet to defined techniques as well. By using STRT, your facility can concentrate on the creation and use of the data rather than on the periodic communications activities. An STRT installation only needs to use their internal software to:

- For outgoing transmissions - create the family data records (header and detail), which contain the outgoing data.
- For incoming transmissions – operate on the separated family data streams (header and detail).

STRT pretty much does the rest.

STRT will be provided at no charge to any organization wanting to communicate with EMS. It is expected that over time STRT will become the only software vehicle permitted to communicate with EMS. The user, however, will need to purchase their own copy of ProComm for Windows, an off the shelf communications software package with a retail cost of about $125.

4.1 Record Format Descriptions

4.1.1 There are four overall types of record formats, two of which are being kept to provide backward compatibility.

4.1.2 Each record being sent to EMS may either end with a “Carriage Return/Line Feed” ($^{CR}/_{LF}$) or could data stream. EMS determines the number of bytes associated with each incoming record and strips the $^{CR}/_{LF}$ if it is present. Both of the following examples would be equivalent:

4.1.2.1 Record with $^{CR}/_{LF}$:

\---Record A ---\$^{CR}/_{LF}$\---Record B ---\$^{CR}/_{LF}$\---Record C ---\$^{CR}/_{LF}$

4.1.2.2 Data Stream without $^{CR}/_{LF}$:

\---Record A ---\---Record B ---\---Record C ---\

4.1.3 Each record being sent from EMS to the Receiver will not have a $^{CR}/_{LF}$ as shown below. It would be up to the receiver to add the $^{CR}/_{LF}$ if they desired.

\---Record A ---\---Record B ---\---Record C ---\

4.1.4 STANDARD* 80 byte (First byte must between "0" and "9") See Fig 4.3.A

Bytes From/To	Field Name	Format	Description
1/4	From Id	9(4)	The Sending Account Number of the originating installation.
5/8	To Id	9(4)	The Receiving Account Number of the installation to whom the record should be transmitted.
9/11	Record Code	9(3)	See Chapter 3 for a discussion of the allowable record codes.
12/80	Data Fields		See Chapter 3 for detailed layouts.

4.1.5 COMPRESSED†† 80 byte (First byte must be "C") See Fig 4.3.B
160 position (Positions 1 and 2 must be "C")

Positions From/To	Field Name	Format	Description
1/2	Record Type	X(1)	Taken together as a full byte - Value "C" (EBCDIC "C3"/ASCII "43")$_{hex}$
3/6	From Id	9(4)	The Sending Account Number of the originating installation.
7/10	To Id	9(4)	The Receiving Account Number of the installation to whom the record should be transmitted.
11/13	Record Code	9(3)	See Chapter 3 for a discussion of the allowable record codes.
14/160	Data Fields		See Chapter 3 for detailed layouts.

4.1.6 VARIABLE 18 to 16,000 bytes (First byte must be "V") See Fig 4.3.C

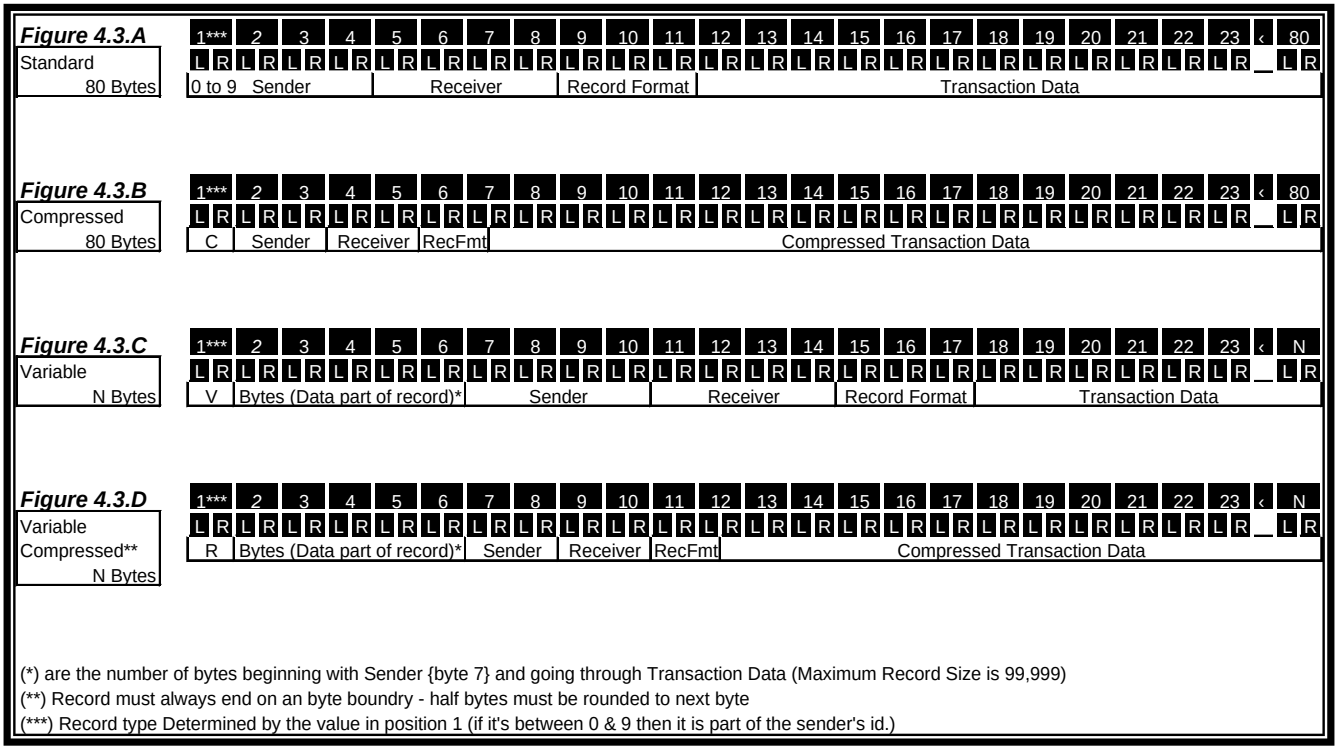
Bytes From/To	Field Name	Format	Description
1	Record Type	X(1)	Value "V" (EBCDIC "E5"/ASCII "56")$_{hex}$
2/6	Length in Bytes	9(5)	The number of bytes making up the data portion of the record (Number of bytes from and including byte 7 to the end of the record)
7/10	From Id	9(4)	The Sending Account Number of the originating installation.
11/14	To Id	9(4)	The Receiving Account Number of the installation to whom the record should be transmitted.
15/17	Record Code	9(3)	See Chapter 3 for a discussion of the allowable record codes.
18/N	Data Fields		Layouts depend on the record cove specified. See Chapter 3 for detailed layouts. N is the Length in Bytes plus 6.

* Will remain in place to provide for backward compatibility
† See Appendix A for explanation of the compression algorithm

4.1.7 VARIABLE COMPRESSED 12 to 15,000 bytes (First byte must be "R") See Fig 4.3.D 24 to 31,000 positions (Positions 1 and 2 must be "R")

Positions From/To	Field Name	Format	Description
1/2	Record Type	X(1)	Taken together as a full byte - Value "R (EBCDIC "D9"/ASCII "52")$_{hex}$"
3/14	Length in Bytes	9(5)	The number of bytes making up the data portion of the record (Number of bytes from and including byte 7 to the end of the record)
15/16	From Id	9(4)	The Sending Account Number of the originating installation.
17/20	To Id	9(4)	The Receiving Account Number of the installation to whom the record should be transmitted.
21/23	Record Code	9(3)	See Chapter 3 for a discussion of the allowable record codes.
24/N	Data Fields		Layouts depend on the record cove specified. See Chapter 3 for detailed layouts. N is 2 times the sum of the Length in Bytes determined in Positions 3/14 plus 6 (eg. if the Length in Bytes is 200, the total number of positions 412, of which 23 is used for the R(2), Length (10), Sender (4), Receiver (4) & Record Format (3).

As can be noted, each of the above formats use the same concept of a Sender Id, a Receiver Id and a Record Format. The difference between them is that these fields appear in a different set of positions within the record and whether or not the record needs to be decompressed before determining their values.



Appendix A

Rules for Compressing and Decompressing Certain Record Types

One of the highest costs to run and operate the EMS system is for the telephone charges that accrue during the transmission of records, both between the Wholesaler and DPS, DPS and the National Distributor and vice versa. As a result of the large number of certain record types, such as magazine and book, invoice and credit memo detail records, as well as ABC, magazine affidavit and sales information, it is desirable to have method that reduces the number of records total bytes that need to be transmitted. The following describes a method that is easy to implement that can reduce these charges and the time required for transmission by as much as 80%. This type of compression benefits everyone in that it reduces the time required to remain connected by the sending, as well as the receiving, computer.

The methodology operates around the concept that a single hexadecimal character can actually handle 256 different symbols. Since certain record types are either all numeric, or can have a minimum of other characters (up to 6 including a blank), it is possible to represent this limited set of 2 characters in each byte. These compressed formats can be identified by placing the letter "C" in the first byte and 158 additional compressed characters into bytes 2 through 80 of the 80 byte record or an “R” in the first byte, the length in the next five bytes and compressed characters in the next “N” bytes. Additionally, although certain record types provide for alphabetic information such as title and issue date (as printed on the magazine), in most cases the Wholesaler only needs the BIPAD number and the UPC Issue code (which consists of the last 2 digits of the year concatenated with the UPC Add-on code). In the event the National Distributor needs to send the full expanded record, it can still use the full expanded 80 byte record for those few items. Using the Magazine Credit Memo as an example, it will be possible to transfer six items on a single 80 byte record.

The generic layout of a “**Compressed**” record is as follows:

Positions Normal	Positions Compressed	Description
N/A	1	The Letter "C" (EBCDIC “C3”/ASCII “43”)$_{hex}$
3/6	2/3	The Sending Account Number in Compressed Format
7/10	4/5	The Receiving Account Number in Compressed Format
11/160	6/80	The remaining data fields in Compressed Format. The Record Type Code will be in positions 11/13.

The generic layout of a “**Variable Compressed**” record is as follows:

Positions Normal	Positions Compressed	Description
N/A	1	The Letter "R" (EBCDIC “D9”/ASCII “52”)$_{hex}$
N/A	2/6	The Length in Bytes of the Data portion of the record
13/16	7/8	The Sending Account Number in Compressed Format
17/20	9/10	The Receiving Account Number in Compressed Format
21/2N	11/N	The remaining data fields in Compressed Format. The Record Type Code will be in positions 21/23.

EMS needs to test the first position of each record to determine whether or not it contained the letter "C" or “R”. If it doesn’t, then it would know that the sending and receiving account numbers would be in positions 1/4 and 5/8 of a “Standard” record or 7/10 and 11/14 of a “Variable” record respectively. If it did, then it would need to decompress positions 2/5 to determine the sending and receiving account numbers.

o Translation to the Compressed 80-Byte Format

The actual compressing and decompressing processes would operate via translation tables. The Compression Translation Table (See Figure App-1) assumes that the user has a 160 character record, of which positions 1/2 are not used. It would then process this record in pairs starting with positions 3/4 and ending with positions 159/160. It would match the odd position against the vertical value of the index and the even position against the horizontal value of the index. The table value for the intersection would be the value that was placed in the appropriate position of the 80 byte format. The positional correspondence between the 160 character record and the 80 byte record is, for each pair, divide the even position by 2. For example the pair of positions 7/8 of the 160 character record would be placed in byte 4 of the 80 byte record. Examples of the actual table look-up follow:

Paired values in the 158 character record	Value in the 80 byte record (HEX)
8 & 7	87
0 & 3	03
5 & blank	5A
blank & X	AB

o Translation to the Variable Compressed N-Byte Format

The actual compressing and decompressing processes would operate via translation tables. The Compression Translation Table (See Figure App-1) assumes that the user has a 2*N character record that is to be compressed. It would then process this record in pairs starting with positions 1/2 and ending with positions (2*N-1)/(2*N). It would match the odd position against the vertical value of the index and the even position against the horizontal value of the index. The table value for the intersection would be the value that was placed in the appropriate position of the N- byte format. The positional correspondence between the 2*N character record and the N byte record is, for each pair, divide the even position by 2. For example the pair of positions 7/8 of the 2*N character record would be placed in byte 4 of the N byte record. After completing the above compression, the programmer should prepend 6 bytes to the front of the 2N record which would contain the letter R and the 5 byte length of the 2*N record. The end result will be that the actual final record will be 2*N + 6 bytes in length.

The user may choose to develop an alternative method of compressing other than the one described above (See Programming Suggestions later in this Appendix for one such method). However, the results must be identical.

Graphic==>0		1	2	3	4	5	6	7	8	9	blank	X	-	not	not	not	
Hex====>F0		F1	F2	F3	F4	F5	F6	F7	F8	F9	40	E7	60	used	used	used	
0	F0	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
1	F1	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F
2	F2	20	21	22	23	24	25	26	27	28	29	2A	2B	2C	2D	2E	2F
3	F3	30	31	32	33	34	35	36	37	38	39	3A	3B	3C	3D	3E	3F
4	F4	40	41	42	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F
5	F5	50	51	52	53	54	55	56	57	58	59	5A	5B	5C	5D	5E	5F
6	F6	60	61	62	63	64	65	66	67	68	69	6A	6B	6C	6D	6E	6F
7	F7	70	71	72	73	74	75	76	77	78	79	7A	7B	7C	7D	7E	7F
8	F8	80	81	82	83	84	85	86	87	88	89	8A	8B	8C	8D	8E	8F
9	F9	90	91	92	93	94	95	96	97	98	99	9A	9B	9C	9D	9E	9F
blank	40	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	AA	AB	AC	AD	AE	AF
X	E7	B0	B1	B2	B3	B4	B5	B6	B7	B8	B9	BA	BB	BC	BD	BE	BF
-	60	C0	C1	C2	C3	C4	C5	C6	C7	C8	C9	CA	CB	CC	CD	CE	CF
not	used	D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	DA	DB	DC	DD	DE	DF
not	used	E0	E1	E2	E3	E4	E5	E6	E7	E8	E9	EA	EB	EC	ED	EE	EF
not	used	F0	F1	F2	F3	F4	F5	F6	F7	F8	F9	FA	FB	FC	FD	FE	FF

Compression Translation Table

Figure App-1 (EBCDIC)

Graphic==>0		1	2	3	4	5	6	7	8	9	blank	X	-	not	not	not	
Hex====>30		31	32	33	34	35	36	37	38	39	20	58	2D	used	used	used	
0	30	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
1	31	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F
2	32	20	21	22	23	24	25	26	27	28	29	2A	2B	2C	2D	2E	2F
3	33	30	31	32	33	34	35	36	37	38	39	3A	3B	3C	3D	3E	3F
4	34	40	41	42	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F
5	35	50	51	52	53	54	55	56	57	58	59	5A	5B	5C	5D	5E	5F
6	36	60	61	62	63	64	65	66	67	68	69	6A	6B	6C	6D	6E	6F
7	37	70	71	72	73	74	75	76	77	78	79	7A	7B	7C	7D	7E	7F
8	38	80	81	82	83	84	85	86	87	88	89	8A	8B	8C	8D	8E	8F
9	39	90	91	92	93	94	95	96	97	98	99	9A	9B	9C	9D	9E	9F
blank	20	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	AA	AB	AC	AD	AE	AF
X	58	B0	B1	B2	B3	B4	B5	B6	B7	B8	B9	BA	BB	BC	BD	BE	BF
-	2D	C0	C1	C2	C3	C4	C5	C6	C7	C8	C9	CA	CB	CC	CD	CE	CF
not	used	D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	DA	DB	DC	DD	DE	DF
not	used	E0	E1	E2	E3	E4	E5	E6	E7	E8	E9	EA	EB	EC	ED	EE	EF
not	used	F0	F1	F2	F3	F4	F5	F6	F7	F8	F9	FA	FB	FC	FD	FE	FF

Compression Translation Table

Figure App-1 (ASCII)

o Translation from the Compressed 80-Byte Format (First Byte is a "C")

The decompressing table assumes that the user has the 80 byte record and will decompress it to a 160 character record. It will explode each hex value into two EBCDIC characters starting with byte 2 of the 80 byte record (which is positions 3/4 of the 160 character record) and ending with byte 80 of the 80 byte record (which is positions 159/160 of the 160 character record). It would match the hex value of the 80 byte record against the value in column 1 of the Decompression Translation Table (See Figure App-2) and use the corresponding values in column 2 and column 3 for the translated values. The odd or first position in the 160 character record will be the calculated by multiplying the byte number of the 80 byte record by 2 and then subtracting 1. For example byte 7 of the 80 byte record would become the pair of characters in positions 13/14 of the 160 character record. Examples of the actual table look-up follow:

Value in the 80 byte record (HEX)	Paired values in the 158 character record
4A	4 & blank
27	2 & 7
B0	X & 0
AB	blank & X

o Translation from the Variable Compressed N-Byte Format (First Byte is an "R")

Before beginning this process, the user should determine the value of N from bytes 2/6 of the incoming record and then move the following N bytes into a buffer from which they will parse the record. The decompressing table assumes that the user has the N byte record and will decompress it to a 2*N character record. It will explode each hex value into two EBCDIC characters starting with byte 1 of the N byte record (which is positions 1/2 of the 2*N character record) and ending with byte N of the N byte record (which is positions (2*N-1)/(2*N) of the 2*N character record). It would match the hex value of the N byte record against the value in column 1 of the Decompression Translation Table (See Figure App-2) and use the corresponding values in column 2 and column 3 for the translated values. The odd or first position in the 2*N character record will be the calculated by multiplying the byte number of the N byte record by 2 and then subtracting 1. For example byte 7 of the N byte record would become the pair of characters in positions 13/14 of the 2*N character record.

The user may choose to develop an alternative method of compressing other than the one described above (See Programming Suggestions later in this Appendix for one such method). However, the results must be identical.

COL 1	COL 2	COL 3	COL 1	COL 2	COL 3	COL 1	COL 2	COL 3	COL 1	COL 2	COL 3
00	F0	F0	40	F4	F0	80	F8	F0	C0	60	F0
01	F0	F1	41	F4	F1	81	F8	F1	C1	60	F1
02	F0	F2	42	F4	F2	82	F8	F2	C2	60	F2
03	F0	F3	43	F4	F3	83	F8	F3	C3	60	F3
04	F0	F4	44	F4	F4	84	F8	F4	C4	60	F4
05	F0	F5	45	F4	F5	85	F8	F5	C5	60	F5
06	F0	F6	46	F4	F6	86	F8	F6	C6	60	F6
07	F0	F7	47	F4	F7	87	F8	F7	C7	60	F7
08	F0	F8	48	F4	F8	88	F8	F8	C8	60	F8
09	F0	F9	49	F4	F9	89	F8	F9	C9	60	F9
0A	F0	40	4A	F4	40	8A	F8	40	CA	60	40
0B	F0	E7	4B	F4	E7	8B	F8	E7	CB	60	E7
0C	F0	60	4C	F4	60	8C	F8	60	CC	60	60
0D	F0		4D	F4		8D	F8		CD	60	
0E	F0		4E	F4		8E	F8		CE	60	
0F	F0		4F	F4		8F	F8		CF	60	
10	F1	F0	50	F5	F0	90	F9	F0	D0		F0
11	F1	F1	51	F5	F1	91	F9	F1	D1		F1
12	F1	F2	52	F5	F2	92	F9	F2	D2		F2
13	F1	F3	53	F5	F3	93	F9	F3	D3		F3
14	F1	F4	54	F5	F4	94	F9	F4	D4		F4
15	F1	F5	55	F5	F5	95	F9	F5	D5		F5
16	F1	F6	56	F5	F6	96	F9	F6	D6		F6
17	F1	F7	57	F5	F7	97	F9	F7	D7		F7
18	F1	F8	58	F5	F8	98	F9	F8	D8		F8
19	F1	F9	59	F5	F9	99	F9	F9	D9		F9
1A	F1	40	5A	F5	40	9A	F9	40	DA		40
1B	F1	E7	5B	F5	E7	9B	F9	E7	DB		E7
1C	F1	60	5C	F5	60	9C	F9	60	DC		60
1D	F1		5D	F5		9D	F9		DD		
1E	F1		5E	F5		9E	F9		DE		
1F	F1		5F	F5		9F	F9		DF		
20	F2	F0	60	F6	F0	A0	40	F0	E0		F0
21	F2	F1	61	F6	F1	A1	40	F1	E1		F1
22	F2	F2	62	F6	F2	A2	40	F2	E2		F2
23	F2	F3	63	F6	F3	A3	40	F3	E3		F3
24	F2	F4	64	F6	F4	A4	40	F4	E4		F4
25	F2	F5	65	F6	F5	A5	40	F5	E5		F5
26	F2	F6	66	F6	F6	A6	40	F6	E6		F6
27	F2	F7	67	F6	F7	A7	40	F7	E7		F7
28	F2	F8	68	F6	F8	A8	40	F8	E8		F8
29	F2	F9	69	F6	F9	A9	40	F9	E9		F9
2A	F2	40	6A	F6	40	AA	40	40	EA		40
2B	F2	E7	6B	F6	E7	AB	40	E7	EB		E7
2C	F2	60	6C	F6	60	AC	40	60	EC		60
2D	F2		6D	F6		AD	40		ED		
2E	F2		6E	F6		AE	40		EE		
2F	F2		6F	F6		AF	40		EF		
30	F3	F0	70	F7	F0	B0	E7	F0	F0		F0
31	F3	F1	71	F7	F1	B1	E7	F1	F1		F1
32	F3	F2	72	F7	F2	B2	E7	F2	F2		F2
33	F3	F3	73	F7	F3	B3	E7	F3	F3		F3
34	F3	F4	74	F7	F4	B4	E7	F4	F4		F4
35	F3	F5	75	F7	F5	B5	E7	F5	F5		F5
36	F3	F6	76	F7	F6	B6	E7	F6	F6		F6
37	F3	F7	77	F7	F7	B7	E7	F7	F7		F7
38	F3	F8	78	F7	F8	B8	E7	F8	F8		F8
39	F3	F9	79	F7	F9	B9	E7	F9	F9		F9
3A	F3	40	7A	F7	40	BA	E7	40	FA		40
3B	F3	E7	7B	F7	E7	BB	E7	E7	FB		E7
3C	F3	60	7C	F7	60	BC	E7	60	FC		60
3D	F3		7D	F7		BD	E7		FD		
3E	F3		7E	F7		BE	E7		FE		
3F	F3		7F	F7		BF	E7		FF		

Decompression Translation Table

Figure App-2 (EBCDIC)

COL 1	COL 2	COL 3	COL 1	COL 2	COL 3	COL 1	COL 2	COL 3	COL 1	COL 2	COL 3
00	F0	30	40	F4	30	80	F8	30	C0	60	30
01	F0	31	41	F4	31	81	F8	31	C1	60	31
02	F0	32	42	F4	32	82	F8	32	C2	60	32
03	F0	33	43	F4	33	83	F8	33	C3	60	33
04	F0	34	44	F4	34	84	F8	34	C4	60	34
05	F0	35	45	F4	35	85	F8	35	C5	60	35
06	F0	36	46	F4	36	86	F8	36	C6	60	36
07	F0	37	47	F4	37	87	F8	37	C7	60	37
08	F0	38	48	F4	38	88	F8	38	C8	60	38
09	F0	39	49	F4	39	89	F8	39	C9	60	39
0A	F0	20	4A	F4	20	8A	F8	20	CA	60	20
0B	F0	58	4B	F4	58	8B	F8	58	CB	60	58
0C	F0	2D	4C	F4	2D	8C	F8	2D	CC	60	2D
0D	F0		4D	F4		8D	F8		CD	60	
0E	F0		4E	F4		8E	F8		CE	60	
0F	F0		4F	F4		8F	F8		CF	60	
10	F1	30	50	F5	30	90	F9	30	D0		30
11	F1	31	51	F5	31	91	F9	31	D1		31
12	F1	32	52	F5	32	92	F9	32	D2		32
13	F1	33	53	F5	33	93	F9	33	D3		33
14	F1	34	54	F5	34	94	F9	34	D4		34
15	F1	35	55	F5	35	95	F9	35	D5		35
16	F1	36	56	F5	36	96	F9	36	D6		36
17	F1	37	57	F5	37	97	F9	37	D7		37
18	F1	38	58	F5	38	98	F9	38	D8		38
19	F1	39	59	F5	39	99	F9	39	D9		39
1A	F1	20	5A	F5	20	9A	F9	20	DA		20
1B	F1	58	5B	F5	58	9B	F9	58	DB		58
1C	F1	2D	5C	F5	2D	9C	F9	2D	DC		2D
1D	F1		5D	F5		9D	F9		DD		
1E	F1		5E	F5		9E	F9		DE		
1F	F1		5F	F5		9F	F9		DF		
20	F2	30	60	F6	30	A0	40	30	E0		30
21	F2	31	61	F6	31	A1	40	31	E1		31
22	F2	32	62	F6	32	A2	40	32	E2		32
23	F2	33	63	F6	33	A3	40	33	E3		33
24	F2	34	64	F6	34	A4	40	34	E4		34
25	F2	35	65	F6	35	A5	40	35	E5		35
26	F2	36	66	F6	36	A6	40	36	E6		36
27	F2	37	67	F6	37	A7	40	37	E7		37
28	F2	38	68	F6	38	A8	40	38	E8		38
29	F2	39	69	F6	39	A9	40	39	E9		39
2A	F2	20	6A	F6	20	AA	40	20	EA		20
2B	F2	58	6B	F6	58	AB	40	58	EB		58
2C	F2	2D	6C	F6	2D	AC	40	2D	EC		2D
2D	F2		6D	F6		AD	40		ED		
2E	F2		6E	F6		AE	40		EE		
2F	F2		6F	F6		AF	40		EF		
30	F3	30	70	F7	30	B0	E7	30	F0		30
31	F3	31	71	F7	31	B1	E7	31	F1		31
32	F3	32	72	F7	32	B2	E7	32	F2		32
33	F3	33	73	F7	33	B3	E7	33	F3		33
34	F3	34	74	F7	34	B4	E7	34	F4		34
35	F3	35	75	F7	35	B5	E7	35	F5		35
36	F3	36	76	F7	36	B6	E7	36	F6		36
37	F3	37	77	F7	37	B7	E7	37	F7		37
38	F3	38	78	F7	38	B8	E7	38	F8		38
39	F3	39	79	F7	39	B9	E7	39	F9		39
3A	F3	20	7A	F7	20	BA	E7	20	FA		20
3B	F3	58	7B	F7	58	BB	E7	58	FB		58
3C	F3	2D	7C	F7	2D	BC	E7	2D	FC		2D
3D	F3		7D	F7		BD	E7		FD		
3E	F3		7E	F7		BE	E7		FE		
3F	F3		7F	F7		BF	E7		FF		

Decompression Translation Table

Figure App-2 (ASCII)

Appendix B

Glossary

Appendix C

Charts and Other Figures

Figure 3

Calculation of UPC Self Check Digits

The process of determining the self check digit follows:

I) If the UPC is a Full 10 digit UPC skip to step III

II) Expansion of Suppressed UPC (The number system must be a zero).

A) If the six digit number ends in a 5, 6, 7, 8 or 9, place four zeros between the fifth and sixth digits to create the full UPC. (IE: 123456 becomes 12345-00006 -and- 345678 becomes 34567-00008; then go to step III).

B) If the six digit number ends in a 4, throw away the 4 and place five zeros between the fourth and fifth remaining digits to create the full UPC. (IE: 748244 becomes 74820-00004 -and- 724404 becomes 72440-00000); then go to step III).

C) If the six digit number ends in a 3, throw away the 3 and place five zeros between the third and fourth remaining digits to create the full UPC. (IE: 354113 becomes 35400-00011 -and- 354013 becomes 35400-00001); then go to step III).

D) If the six digit number ends in a 0, 1 or 2, move the 0, 1 or 2 so that it becomes the third digit and then add four zeros following it before replacing the remaining three digits to create the full UPC. (IE: 341232 becomes 34200-00123 -and- 270011 becomes 27100-00001 -and- 650220 becomes 65000-00022); then go to step III).

III) Only the full UPC code can be used to determine the Self Check Digit. For example purposes assume an 11 digit UPC (Number System plus full 10 digit UPC) of 0-12345-67890. The 0,2,4,6,8 & 0 digits are the odd positions and the 1,3,5,7 & 9 are the even digits. For this calculation, the digits are all handled as separate numbers.

A) Add up all the Odd digits to get ("Odd_Sum") (For example: 20)

B) Multiply Odd_Sum by 3 to get ("Odd_Mult") (For example: 60)

C) Add up all the Even digits to get ("Even_Sum") (For example: 25)

D) Add Odd_Mult to Even_Sum to get ("Tot_Val") (For example: 85)

E) Subtract Tot_Val from 1000 to get ("Dif_Val") (For example: 915)

F) Keep only the units digit from Dif_Val to get ("Self Check Digit") (For example: 5) (Note: A modulo 10 function can be used for this step.)

Examples:

1) Actual example 1: Forbes has a suppressed UPC of 0-439338. It expands to a full UPC of 0-43933-00008 (see step II).
Step III-A has a value of 14 (0+3+3+0+0+8)
Step III-B has a value of 42 (14 * 3)
Step III-C has a value of 16 (4+9+3+0+0)
Step III-D has a value of 58 (42+16)
Step III-E has a value of 942
Step III-F has a value of 2
So the full UPC is 0-43933-00008-2 and the suppressed UPC is 0-439338^^^^-2.

2) Actual example 1: Islands has a suppressed UPC of 0-215465. It expands to a full UPC of 0-21546-00005 (see step II).
Step III-A has a value of 10 (0+1+4+0+0+5)

Step III-B has a value of 30 (10 * 3)
Step III-C has a value of 13 (2+5+6+0+0)
Step III-D has a value of 43 (30+13)
Step III-E has a value of 957
Step III-F has a value of 7
So the full UPC is 0-21546-00005-7 and the suppressed UPC is 0-215465^^^^-7.

3) Actual example 3: Cosmopolitan has a suppressed UPC of 0-754704. It expands to a full UPC of 0-75470-00000 (see step II).
Step III-A has a value of 12 (0+5+7+0+0+0)
Step III-B has a value of 36 (12 * 3)
Step III-C has a value of 11 (7+4+0+0+0)
Step III-D has a value of 47 (36+11)
Step III-E has a value of 953
Step III-F has a value of 3
So the full UPC is 0-75470-00000-3 and the suppressed UPC is 0-754704^^^^-3.

4) Actual example 4: OAG has a full UPC of 0-74820-08623.
Step III-A has a value of 15 (0+4+2+0+6+3)
Step III-B has a value of 45 (15 * 3)
Step III-C has a value of 25 (7+8+0+8+2)
Step III-D has a value of 70 (45+25)
Step III-E has a value of 930
Step III-F has a value of 0
So the full UPC is 0-74820-08623-0.

5) Actual example 5: New Stitches has a full UPC of 0-74820-08126.
Step III-A has a value of 13 (0+4+2+0+1+6)
Step III-B has a value of 39 (13 * 3)
Step III-C has a value of 25 (7+8+0+8+2)
Step III-D has a value of 64 (39+25)
Step III-E has a value of 936
Step III-F has a value of 6
So the full UPC is 0-74820-08126-6.

6) Actual example 6: Victorian Sampler has a full UPC of 0-74820-08961.
Step III-A has a value of 16 (0+4+2+0+9+1)
Step III-B has a value of 48 (16 * 3)
Step III-C has a value of 29 (7+8+0+8+6)
Step III-D has a value of 77 (48+29)
Step III-E has a value of 923
Step III-F has a value of 3
So the full UPC is 0-74820-08961-3.

Appendix D

EBCDIC to/from ASCII Conversions

1. Since EMS was originally COBOL based, many of its customs and techniques are part of its heritage and need to remain in place in order to provide for upward compatibility and not cause a problem for current users. One such custom is the use of signed numeric fields [eg. S9(7)v99]. They are used to carry both positive and negative values in the same field by using a specific character in the units position. Sometimes this character is a standard value (zero to nine) while at other times it can be a case sensitive alphabetic or special character. Please note that for future formats, we plan to use a separate field to carry the sign. The challenge for the developer is to be able to deal with the following four possibilities.
    - Created EBCDIC and Delivered to EBCDIC
    - Created in EBCDIC and Delivered to ASCII
    - Created in ASCII and Delivered to ASCII
    - Created in ACSII and Delivered to EBCDIC

1.1. An EBCDIC Sender should use the following table:

Units Digit	Positive Number	Negative Number
0	{	}
1	A	J
2	B	K
3	C	L
4	D	M
5	E	N
6	F	O (letter)
7	G	P
8	H	Q
9	I	R

EBCDIC examples for an S9(7)v99 field:

A. Positive 500.00 would be represented as 00005000{
B. Positive 8153.06 would be represented as 00081530F
C. Negative 1.17 would be represented as 00000011P

1.2. An ASCII Sender should use the following table:

Units Digit	Positive Number	Negative Number
0	0	p
1	1	q
2	2	r
3	3	s
4	4	t
5	5	u
6	6	v
7	7	w
8	8	x
9	9	y

ACCII examples for an S9(7)v99 field:

A. Positive 500.00 would be represented as 000050000
B. Positive 8153.06 would be represented as 000815306
C. Negative 1.17 would be represented as 00000011w

1.3. A recipient, to ensure that they can handle any condition should use the following table:

Units Digit Column 1	Positive Number Column 2	Negative Number Column 3
0	{ or 0	} or p
1	A or 1	J or q
2	B or 2	K or r
3	C or 3	L or s
4	D or 4	M or t
5	E or 5	N or u
6	F or 6	O (letter) or v
7	G or 7	P or w
8	H or 8	Q or x
9	I or 9	R or y

A simple approach would be to take that value in positions 1 to (n-1) of the n position field and multiply it by 10. Look up the value of the n^{th} position in the table and add column 1's value to the number. If the value of the n^{th} position is in column 3 then multiply the whole number by minus 1. Lastly, place the decimal where it belongs. For example if you received the field 00679v using S9(4)v99.

A. Take the 00679 and multiply it by 10 [6790]
B. v is in column 3 and corresponds to 6 in column 1 so you add 6 [6796]
C. Since it's in column 3 multiply by minus 1 [-6796]
D. Apply the decimal [-67.96]

Note that if you received 00679O (letter O), it would have the same result as above.

